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User's Guide to the Event Monitor: An Addition to the Prognosis Model

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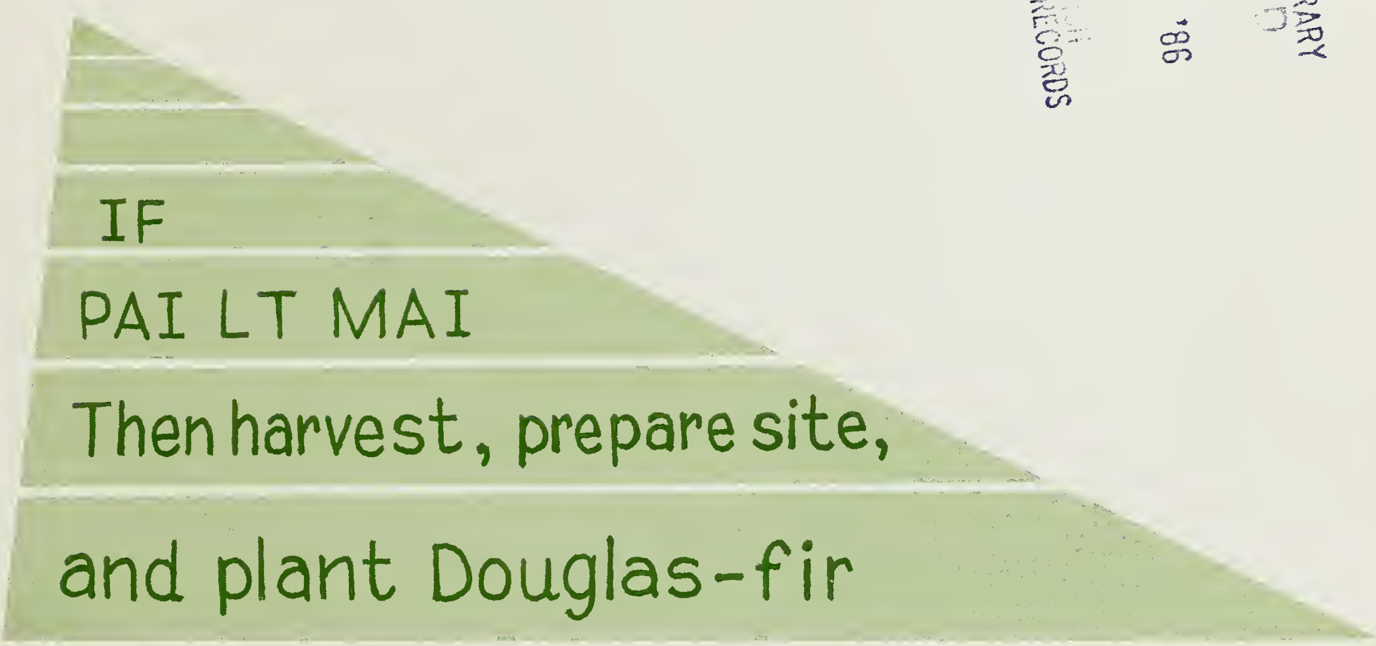

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RESEARCH SUMMARY

The Event Monitor is a programmed procedure for dynamically invoking management activities to be simulated by the Prognosis Model. Activities include simulated thinnings, harvesting, plantings, or any other activity that the simulation model can mimic. The Event Monitor accepts policy statements expressed as conditions to be met and a set of activities to be simulated after the conditions are met. Thus, policy statements may be evaluated using Prognosis Model without users foretelling the development of each stand in an analysis and manually scheduling activities.

The Event Monitor enhances control of the Prognosis Model and the operation of several model extensions, notably the Regeneration Establishment Model and the Parallel Processing Extensions (PPE). As a part of the PPE, the monitor can generate decision trees of management alternatives.

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INTRODUCTION

The decision to perform a management activity in a stand is often contingent upon several factors. Thinning may be called for if the stand is too dense, or spraying may be required if an insect population is causing too much damage. Usually, users of stand-growth simulation models must foretell when stand conditions that require management action will occur and preschedule the program options that represent those actions.

The Event Monitor offers an alternative method of scheduling activities: You specify a set of conditions that must occur, or thresholds that must be reached. During the simulation, the specified conditions are monitored and, in the event they occur, the management activities you specify are scheduled. For example, suppose you wish to schedule a thinning only if the stand crown competition factor (Krajicek and others 1961) exceeds 150, trees per acre exceed 500, and age is greater than 20 and less than 60 years. Using the Event Monitor, the conditions are specified via a logical expression followed by the activities (represented by Prognosis Model options) that are to be invoked when that expression is true.

Taken together, an event and the management activities may be viewed as a policy statement. Thus, policy statements may be evaluated using Prognosis Model without users foretelling the development of each stand in an analysis and manually scheduling activities.

The monitor is part of Version 5 of the Prognosis Model (Stage 1973; Wykoff and others 1982); as a component of that model, it serves the following purposes:

- Permits the inclusion of policy statements in a simulation run. Thus emphasis may be placed on the specification of a policy applicable to a class of stands, rather than on a prescription for individual stands.
- Offers an additional mechanism to control the operation of extensions to the Prognosis Model such as the Regeneration Establishment Model (Ferguson and Crookston 1984).
- Provides a way to create decision trees within the Parallel Processing Extension (Crookston in preparation). Decision trees are useful for systematically evaluating the response of forest growth to random catastrophic events (insect epidemics or forest fires, for example) and alternative management practices given equal starting conditions.

Specific examples will show how to use the program. The rules that govern its operation are implicitly presented in the examples and then explicitly presented in a subsequent section. This order is designed to give you a general understanding of the program's use before you are presented with specific

details. How you apply the rules to your own problems is left to your imagination. Be bold! If you can't find an example that meets your requirements, invent one.

I assume that you are familiar with the Prognosis Model. Terms, operational rules, and concepts explained in the Prognosis Model user's guide (Wykoff and others 1982) are used here without explanation.

USING THE EVENT MONITOR

Overview

An event is designated by an IF keyword record, followed by a logical expression. The expression is coded on one or more supplemental data records. It may contain constants, arithmetic operators, parentheses, relational and logical operators (greater than (GT), less than (LT), equal (EQ), AND, OR, etc.), and certain variables. Following the logical expression, a THEN keyword record is entered; it signals the end of the logical expression and the beginning of the activities that will be scheduled only when the expression is true. Any Prognosis Model keyword-option (including those found in extensions) that can be scheduled by entering a cycle number or year in the first numeric field can be scheduled by the Event Monitor. The value in Field 1 of the activity keyword record is added to the year the event occurs, the sum becomes the year the activity is scheduled to occur. An ENDIF keyword is entered to signal that normal activity processing should resume.

IF, THEN, and ENDIF

Example 1.—The example presented in the Introduction is elaborated on in the context of a complete Prognosis Model keyword file. The policy for this example is as follows: If before-thinning crown competition factor (BCCF) is greater than 150, before-thinning trees per acre (BTPA) is greater than 500, and age is greater than 20 and less than 60, then thin from below to a residual stand density of 300 trees per acre.

	Keyword record							
Reference line	Keyword	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6	Field 7
1	STANDID							
2	EXAMPLE1	EVENT MONITOR USER'S GUIDE EXAMPLE 1.						
3	INVYEAR	1972.						
4	NUMCYCLE	10.						
5	IF	999.						
6	BCCF GT 150 AND BTPA GT 500 AND AGE &							
7	GT 20 AND AGE LT 60							
8	THEN							
9	THINBTA	0.	300.					
10	ENDIF							
11	STDINFO	18.	710.	10.	4.	5.	56.	
12	PROCESS							
13	STOP							

Some of the output created by running this example is in the appendix; further explanation of the input file follows:

Lines 1 and 2: Enter the stand identification and a run title.

Line 3: Specify the inventory year.

Line 4: Specify the number of cycles.

Line 5: IF signals that a logical expression follows and that the minimum delay time between responses to this event is 999 years.

Lines 6 and 7: The logical expression is coded "free form" (that is, characters need not be placed in specific columns) on one or more supplemental data records that follow the IF keyword. The ampersand ("&") at the end of line 6 signals that the expression is continued on the following record.

Line 8: THEN signals that the activities (options specified by date or cycle) that follow will not be scheduled until after the event happens; that is, when the logical expression is true.

Line 9: THINBTA is a thinning option that will be scheduled in the same year that the event happens; thus, a zero is coded in field 1. The residual trees per acre are coded in field 2.

Line 10: ENDIF marks the end of the conditionally specified options.

Line 11: Enter data specific to the stand such as the forest code.

Line 12: Signals that all of the keywords have been entered and that the stand should be processed.

Line 13: Stop the Prognosis Model.

Minimum delay time.—It is possible to specify a logical expression that could remain true for several consecutive cycles. If you intend to schedule a response to the event on longer intervals than each succeeding cycle, you may enter a minimum number of years between responses in field 1 of the IF keyword.

Example 2.—This example illustrates:

- the Event Monitor's use with the Regeneration Establishment Model (Ferguson and Crookston 1984) and, by implication, other Prognosis Model extensions;
- that more than one activity may be specified after a THEN keyword;
- that more than one policy statement may be specified; and
- that the minimum delay time can be set to control the frequency at which activities are scheduled.

The first policy statement concerns the regeneration harvest guides and reads as follows: When the culmination of mean annual increment (MAI) is reached, clearcut the stand, broadcast burn the next year, and, in the second year after harvest, plant 300 spruce and 300 larch per acre. The date of culmination is detected by monitoring periodic annual increment (PAI, 10-year period) and MAI. When periodic annual increment (PAI) is less than MAI, the stand has reached culmination of MAI.

The second policy statement concerns scheduling some thinnings to control density: When the stand basal area (BBA) exceeds 150 ft^2 per acre, thin from below to 130 ft^2. These thinnings should not occur more frequently than every 20 years.

The keyword file used to run this example is listed below; output is in the appendix.

	Keyword record							
Reference line	Keyword	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6	Field 7
1	STANDID							
2	EXAMPLE2	EVENT MONITOR USER'S GUIDE, EXAMPLE 2						
3	INVYEAR	1972.						
4	NUMCYCLE	15.						
5	IF	999.						
6	PAI LT MAI							
7	THEN							
8	THINATA	0.	0.	1.				
9	ESTAB							
10	BURNPREP	1.	80.					
11	MECHPREP	1.	20.					
12	PLANT	2.	2.	300.	90.			
13	PLANT	2.	8.	300.	90.			
14	STOCKADJ	9.	−1.					
15	RESETAGE	0.	0.					
16	END							
17	ENDIF							
18	IF	20.						
19	BBA GT150 AND AGE LT 130							
20	THEN							
21	THINBBA	0.	130.					
22	ENDIF							
23	STDINFO	18.	680.	150.	8.	5.	53.	
24	PROCESS							
25	STOP							

Lines 1 to 4: Like example 1.

Line 5: Specify that the logical expression follows and that the minimum delay time between responses to this event is 999 years.

Lines 6 and 7: Specify the event: IF the PAI is less than the MAI, THEN.

Line 8: The management activity is to cut (using a Prognosis Model thinning option) all of the trees. Note that the residual stand density coded in field 2 is zero, and that the cutting effectiveness coded in field 3 is 1.0.

Line 9: Signals the Prognosis Model that Regeneration Establishment Model options follow.

Lines 10 through 15: Specify the site preparation assumptions and the plantings. Line 14 contains a command that limits establishment of trees to only those planted. Line 15 causes the stand age to be reset to zero years (the number coded in field 2). Consult Ferguson and Crookston (1984) for a complete description of these keywords.

Line 16: Signals the Establishment Model that Prognosis Model options follow.

Line 17: Signals the end of the activities that will only be scheduled when PAI is less than MAI.

Lines 18 to 22: A second policy is entered with a minimum delay time between responses set to 20 years (field 1 of line 18). The before-thin basal area is compared to 150, area is compared to 130 (line 19), and a thinning from below to 130 ft^2 is requested in line 21.

Generating Decision Trees

Decision trees are used to evaluate several different management responses to one event. For a description of this and other applications of decision trees see Stage (1975), Talerico and others (1978), Crookston (1978), Stage and others (in press), and the Parallel Processing Extension user's guide (PPE) (Crookston in preparation). Because the creation of decision trees (fig. 1) in the PPE is controlled by the Event Monitor, an example has been included to illustrate how to use the PPE and the Event Monitor together.

The branches of the decision tree are defined by specifying more than one group of activities following a single logical expression. The first activity (or activity group) follows the THEN keyword record; each subsequent group of activities follows an ALSOTRY keyword record. Each alternative group defines a branch of the decision tree. You may specify one to nine alternative groups of activities for each event. Remember, this option may only be used with the PPE.

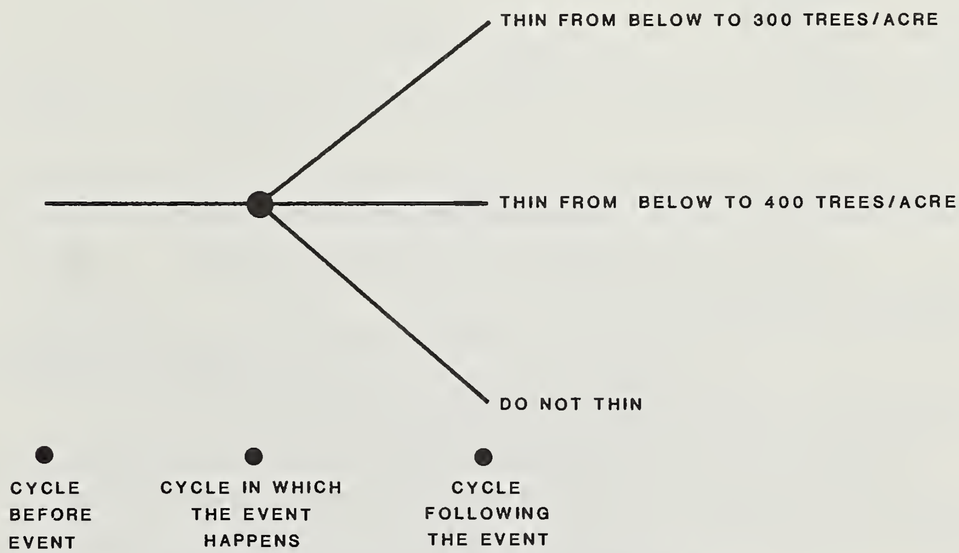

*Figure 1.—The decision tree generated by the PPE when the logical expression in example 3 is true. The black circle is the **node**; in this case three **branches** stem from the node.*

Example 3: ALSOTRY.—Let's reconsider example 1. A thinning from below to 300 trees per acre will be scheduled when the event happens. Using the PPE in conjunction with the Event Monitor you may ALSOTRY another alternative, say thinning from below to 400 trees per acre. A third alternative is not to thin at all. The PPE simulates and reports the results of trying all three alternatives. Keyword records needed to accomplish this objective are as follows (those needed in addition to example 1 are at lines 0.1, 9.1-9.3, and 12.1-12.3):

Reference line	Keyword record							
	Keyword	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6	Field 7
0.1	ADDSTAND							
1	STANDID							
2	EXAMPLE3	EVENT MONITOR USER'S GUIDE EXAMPLE 3.						
3	INVYEAR	1972.						
4	NUMCYCLE	10.						
5	IF	999.						
6	BCCF GT 150 AND BTPA GT 500 AND AGE &							
7	GT 20 AND AGE LT 60							
8	THEN							
9	THINBTA	0.	300.					
9.1	ALSOTRY							
9.2	THINBTA	0.	400.					
9.3	ALSOTRY							
10	ENDIF							
11	STDINFO	18.	710.	10.	4.	5.	56.	
12	PROCESS							
12.1	PROJECT							
12.2	NOCOMPOS							
12.3	YIELDS							
13	STOP							

Output created by running this example may be found in the appendix. An explanation of the input file follows:

Line 0.1: ADDSTAND is a PPE keyword that signals that Prognosis Model keywords follow. See Crookston (in preparation) for an additional explanation.

Lines 1 through 9: Like example 1.

Line 9.1: ALSOTRY signals that another group of activity keywords follows.

Line 9.2: THINBTA is entered with a residual of 400 trees per acre.

Line 9.3: Another ALSOTRY that is followed immediately by an ENDIF signals that one alternative is no management.

Lines 10 through 12: Same as in example 1.

Line 12.1: PROJECT is a PPE keyword that signals that all of the stands (in this case there is only one stand) have been entered and the projection may start.

Line 12.2: NOCOMPOS is a PPE keyword that suppresses the calculation of the composite yield table.

Line 12.3: YIELDS is a PPE keyword that triggers the printing of the yield statistics.

Line 13: Same as in example 1.

You can see the results of the branching and scheduling by carefully reading the Activity Summary tables printed by the PPE for the three management alternatives (output is in the appendix). Each summary table corresponds to one branch of the decision tree (fig. 1). The Activity Summaries list the activities that were scheduled and accomplished and correspond with the Summary Statistics tables printed above them. Consult Wykoff and others (1982) for an additional description of these tables, and Crookston (in preparation) for a description of the PPE.

DETAILED INSTRUCTIONS

The first section of this report describes the purpose and potential use of the Event Monitor and its position within the Prognosis Model. The following section offers additional details that will enable you to make full use of the Event Monitor.

This section is organized as follows: a keyword summary describes the keywords used by the event monitor. A section titled "Order of Computations" will help you understand how the order of calculations within the Prognosis Model influences the Event Monitor. The rules you need to follow when coding logical expressions are described in a section called "Coding Logical Expressions."

Keyword Summary

IF — Signals that the logical expression follows on one or more supplemental data records. You may enter several policies by entering a set of IF, THEN, activity keywords, and an ENDIF for each policy.

Field 1: The minimum waiting time before the event may happen again, default is zero years.

THEN — Signals that the activities that follow will be scheduled when the event happens.[1]

ALSOTRY — Used in conjunction with the PPE to generate decision trees. Signals that a second or subsequent group of activities follow.[1]

ENDIF — Signals the end of a set of Event Monitor keywords.

Several program options that represent activities may follow one THEN or ALSOTRY keyword. (The actual number depends on many factors; a realistic upper limit is about 100.)

Any Prognosis Model options that may be scheduled (that is, a date or cycle is entered in field 1 of the keyword record), may alternatively be entered as conditional activities, that is, they may follow a THEN or ALSOTRY. Prognosis Model options that do not contain a date in field 1 may not be made conditional. For example, a NUMCYCLE keyword entered between a THEN and an ENDIF keyword will be processed normally.

Order of Computations

When expressions are evaluated.—The Event Monitor evaluates all logical expressions at each of two different times during a growth cycle (see fig. 1 in Wykoff and others 1982): once at the beginning of the growth cycle prior to thinnings, and once after thinnings. Therefore, a logical expression that tests on before-thin density can be used to trigger a thinning during the same cycle.

The Regeneration Establishment Model is called near the end of a cycle. Thus, it is possible to trigger a regeneration tally as a response to a before-thin or an after-thin density.

You can schedule a thinning in response to detecting that a thinning has occurred. However, the conditionally scheduled thinning cannot be simulated during the same cycle the event is detected because the event is, itself, another thinning. You can specify that the conditionally scheduled thinning be scheduled 10 years after the event occurs by coding "10" in field 1 of the desired thinning keyword record. If the cycle length is 10 years, the conditionally scheduled thinning will thus be simulated in the following cycle.

---

[1]The numeric fields on the THEN and ALSOTRY keywords are reserved for future use by the PPE.

When Event Monitor variables are defined.—The variables that can be used in logical expressions are divided into four groups (table 1) depending on when the variables are defined. If any variable is undefined when the expression is evaluated, the expression is deemed false.

Table 1.—Variables that can be used within logical expressions

Variable name	Description
	Group 1, always defined
YEAR	Beginning year of a cycle
AGE	Age at beginning of a cycle
BTPA	Before-thin trees per acre
BTCUFT	Before-thin total cubic foot volume
BMCUFT	Before-thin merchantable cubic foot volume
BBDFT	Before-thin Scribner board foot volume
BBA	Before-thin basal area per acre
BCCF	Before-thin crown competition factor
BCCFWP	Before-thin crown competition factor for white pine
BCCFL	Before-thin crown competition factor for larch
BCCFDF	Before-thin crown competition factor for Douglas-fir
BCCFGF	Before-thin crown competition factor for grand fir
BCCFWH	Before-thin crown competition factor for western hemlock
BCCFC	Before-thin crown competition factor for western redcedar
BCCFLP	Before-thin crown competition factor for lodgepole pine
BCCFS	Before-thin crown competition factor for spruce
BCCFAF	Before-thin crown competition factor for alpine fir
BCCFPP	Before-thin crown competition factor for ponderosa pine
BCCFOTR	Before-thin crown competition factor for other species
BTOPHT	Before-thin average top height
BADBH	Before-thin quadratic mean d.b.h.
RANN	A random number between 0 and 1
YES	The constant 1.
NO	The constant 0.
NUMTREES	Number of tree records stored by the model
CYCLE	Cycle number
	Group 2, defined only after thinning each cycle
ATPA	After-thin trees per acre
ATCUFT	After-thin total cubic foot volume
AMCUFT	After-thin merchantable cubic foot volume
ABDFT	After-thin Scribner board foot volume
ABA	After-thin basal area per acre
ACCF	After-thin crown competition factor
ACCFWP	After-thin crown competition factor for white pine
ACCFL	After-thin crown competition factor for larch
ACCFDF	After-thin crown competition factor for Douglas-fir
ACCFGF	After-thin crown competition factor for grand fir
ACCFWH	After-thin crown competition factor for western hemlock
ACCFC	After-thin crown competition factor for western redcedar
ACCFLP	After-thin crown competition factor for lodgepole pine
ACCFS	After-thin crown competition factor for spruce
ACCFAF	After-thin crown competition factor for alpine fir
ACCFPP	After-thin crown competition factor for ponderosa pine
ACCFOTR	After-thin crown competition factor for other species
ATOPHT	After-thin average top height
AADBH	After-thin quadratic mean d.b.h.
RTPA	Removed trees per acre
RTCUFT	Removed total cubic foot volume
RMBDFT	Removed Scribner board foot volume

(con.)

Table 1. (Con.)

Variable name	Description
	Group 3, defined when cycle 2 starts
ACC	Accretion from last cycle, cubic feet/acre/year
MORT	Mortality from last cycle, cubic feet/acre/year
PAI	Periodic annual increment last cycle, cubic feet per acre
MAI	Mean annual increment last cycle, cubic feet
DTPA	Number of trees per acre at the beginning of current cycle minus the number at the beginning of previous cycle
DTPA%	Trees per acre at the beginning of current cycle divided by the number at the beginning of previous cycle; then multiplied times 100
DBA	Basal area per acre at the beginning of current cycle minus the basal area at the beginning of previous cycle
DBA%	Basal area per acre at the beginning of current cycle divided by the basal area at the beginning of previous cycle; then multiplied times 100
DCCF	Crown competition factor at the beginning of current cycle minus the factor at the beginning of previous cycle
DCCF%	Crown competition factor at the beginning of current cycle divided by the factor at the beginning of previous cycle; then multiplied times 100
	Group 4, defined by extensions to the Prognosis Model
TM%STND	The stand average tree defoliation level caused by the Douglas-fir tussock moth during the previous cycle (Monserud and Crookston 1982)
TM%DF	The average tree defoliation on Douglas-fir
TM%GF	The average tree defoliation on grand fir
MPBTPAK	The number of trees per acre killed by the mountain pine beetle during the previous cycle
BW%STND	The stand defoliation level caused by the western spruce budworm during the previous cycle
SELECTED	Takes on the value YES if the stand has been selected for harvest by the PPE's harvest allocation logic. The value is NO if the stand has not been selected.

Variables listed in group 1 are always known; you can include them in logical expressions either by themselves or with those listed in the other groups.

Group 2 variables are only known after thinning. They are correctly defined even though no thinnings are done in a given cycle, but they are undefined when the Event Monitor evaluates expressions prior to thinnings each cycle.

Group 3 variables are not defined until after the first cycle. For example, the stand accretion is computed after the second time the Event Monitor evaluates logical expressions each cycle. Therefore, the stand accretion variable is assigned the accretion from the previous cycle. Variables that measure change, such as DBA (delta basal area, the change in basal area from cycle to cycle), are computed by the monitor by subtracting the value stored from the previous cycle from the current value. These variables are also undefined until the beginning of the second Prognosis Model cycle. After the second cycle starts, group 3 variables can be used any time.

Group 4 variables are assigned values by Prognosis Model extensions. The value of these variables remains unknown unless the appropriate extension is being used.

Coding Logical Expressions

Logical expressions consist of variables (table 1), constants, parentheses, and logical and arithmetic operators (table 2). When coding logical expressions, follow these rules:

- Variable names, constants, and function names must be separated from logical operators by one or more blanks or parentheses.
- A parenthesis, constant, or variable must separate two arithmetic operators: AGE*−2.5 is invalid, AGE*(−2.5) is valid, −2.5*AGE is also valid.
- Operators are executed in order of precedence given in table 2, or parentheses may be used to control the precedence of evaluation.
- When equally ranked operations are found, evaluation proceeds from left to right.
- Constants are treated as floating point numbers whether or not a decimal point is coded. A value coded as an integer is converted to floating point by adding decimal point: 300 is converted to 300.0.
- An ampersand (&) signals that the expression is continued on the next line. Characters that follow the ampersand are ignored and may be used to enter comments.

The following are **valid** (and equivalent) expressions:

```
(BTPA*2 GE 1000 OR AGE GT 50.)
(NOT BTPA LT 500) OR (NOT AGE LE 50.0)
NOT (BTPA LT 500 AND AGE LE 50)
```

The following are **invalid**:

(ATPA .LT. 500.)—the inclusion of the periods before and after the less-than operator is valid in FORTRAN but **not** in the Event Monitor.
(NOT ((BTPA LT 50))—unbalanced parentheses.

Table 2.—Operators that can be used in logical expressions

Precedence[1]	Operator	Description	Example of usage
		Arithmetic functions	
1st	SQRT	Square root	SQRT(A)
1st	EXP	e raised to power A	EXP(A)
1st	ALOG	Natural logarithm	ALOG(A)
1st	ALOG10	Common logarithm	ALOG10(A)
1st	INT	Truncate fractional part[2]	INT(A/B)
1st	FRAC	Truncate integer part[3]	FRAC(A/B)
		Arithmetic operators	
2nd	−	Change sign	−A
3rd	**	Exponentiate	A**B
4th	*	Multiply	A*B
4th	/	Divide	A/B
5th	+	Add	A+B
5th	−	Subtract	A−B
		Logical operators	
6th	EQ	Equal	A EQ B
6th	NE	Not equal	A NE B
6th	LT	Less than	A LT B
6th	GT	Greater than	A GT B
6th	LE	Less than or equal	A LE B
6th	GE	Greater than or equal	A GE B
7th	NOT	Logical not	NOT (A GT B)
8th	AND	Logical and	(A GT B) AND (A LT C)
9th	OR	Logical or	(A GT B) OR (A LT C)

[1]Operators are executed in order of precedence within parenthetical groups. For example consider the following: ALOG(A)**2.+5/C, the log is taken first, the result is raised to the power of 2, then 5 is divided by C and added to the previous result.
[2]For example: INT(3.4) is equal to 3.0.
[3]For example: FRAC(3.4) is equal to 0.4.

SUMMARY

Using the Event Monitor, logical relations between stand variables generated by the Prognosis Model can be evaluated during the simulation. When the logical relation is true, activities which the model is capable of simulating will be invoked.

This document describes how to use the Event Monitor to schedule Prognosis Model options such as thinnings and Establishment Model options and how to create decision trees using the PPE.

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APPENDIX: OUTPUT EXAMPLES

Example 1.

```
                    STAND GROWTH PROGNOSIS SYSTEM        VERSION 5.0 -- INLAND EMPIRE (TEST)
-------------------------------------------------------------------------------------------------
                                   OPTIONS SELECTED BY INPUT
-------------------------------------------------------------------------------------------------
KEYWORD    PARAMETERS:
--------   --------------------------------------------------------------------------------------
STDIDENT
           STAND ID= EXAMPLE1               EVENT MONITOR USER'S GUIDE EXAMPLE 1.

INVYEAR    INVENTORY YEAR= 1972

NUMCYCLE   NUMBER OF CYCLES= 10

IF         MINIMUM DELAY TIME BETWEEN RESPONSES TO THE EVENT =   999

             BCCF GT 150 AND BTPA GT 500 AND AGE &
             GT 20 AND AGE LT 60

THEN       ACTIVITIES WHICH FOLLOW WILL NOT BE SCHEDULED UNTIL THE EVENT HAPPENS (WHEN THE LOGICAL EXPRESSION IS TRUE).

THINBTA    DATE/CYCLE=    0; RESIDUAL=  300.00; PROPORTION OF SELECTED TREES REMOVED= 0.980
           DBH OF REMOVED TREES WILL RANGE FROM   0.0 TO 999.0 INCHES

ENDIF      ACTIVITIES WHICH FOLLOW WILL BE SCHEDULED.

STDINFO    FOREST CODE= 18; HABITAT TYPE=710; AGE=   10; ASPECT CODE=  4.; SLOPE CODE=  5.
           ELEVATION(100'S FEET)= 56.0; SITE INDEX=   0.

PROCESS    PROCESS THE STAND.
-------------------------------------------------------------------------------------------------
                                   OPTIONS SELECTED BY DEFAULT
-------------------------------------------------------------------------------------------------

TREEFMT    (23X,I4,3X, F2.0,I1, A3,F3.1,F2.1,3X,F3.0,T63,F3.0   ,T60,F3.1,T48,  I1,3X, I2,
           2I1,T66,2I1,I3, 2I1)

DESIGN     BASAL AREA FACTOR= 40.0; INVERSE OF FIXED PLOT AREA=  300.0; BREAK DBH=    5.0
           NUMBER OF PLOTS=    18; NON-STOCKABLE PLOTS=     7; STAND SAMPLING WEIGHT=  18.00000
           STAND ATTRIBUTES ARE CALCULATED PER ACRE OF STOCKABLE AREA.  STAND STATISTICS
           IN SUMMARY TABLE ARE MULTIPLIED BY 0.611 TO INCLUDE TOTAL STAND AREA.
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ACTIVITY SCHEDULE

STAND ID= EXAMPLE1   MANAGEMENT ID= NONE   EVENT MONITOR USER'S GUIDE EXAMPLE 1.

CYCLE	DATE	EXTENSION	KEYWORD	DATE	PARAMETERS:
1	1972				
2	1982				
3	1992				
4	2002				
5	2012				
6	2022				
7	2032				
8	2042				
9	2052				
10	2062				

CALIBRATION STATISTICS:

	LP	WP	AF	--	S
NUMBER OF RECORDS PER SPECIES	2	5	19	5	2
NUMBER OF RECORDS CODED AS RECENT MORTALITY	0	0	0	0	0
NUMBER OF RECORDS WITH MISSING HEIGHTS	0	0	1	1	0
NUMBER OF RECORDS WITH BROKEN OR DEAD TOPS	0	0	0	0	0
NUMBER OF RECORDS WITH MISSING CROWN RATIOS	0	0	0	0	0
NUMBER OF RECORDS AVAILABLE FOR SCALING THE DIAMETER INCREMENT MODEL	0	0	1	0	1
RATIO OF STANDARD ERRORS (INPUT DBH GROWTH DATA : MODEL)	1.00	1.00	1.00	1.00	1.00
WEIGHT GIVEN TO THE INPUT GROWTH DATA WHEN DBH GROWTH MODEL SCALE FACTORS WERE COMPUTED	0.00	0.00	0.00	0.00	0.00
INITIAL SCALE FACTORS FOR THE DBH INCREMENT MODEL	1.00	1.00	1.00	1.00	1.00
NUMBER OF RECORDS AVAILABLE FOR SCALING THE SMALL TREE HEIGHT INCREMENT MODEL	0	0	0	0	0
INITIAL SCALE FACTORS FOR THE SMALL TREE HEIGHT INCREMENT MODEL	1.00	1.00	1.00	1.00	1.00

(con.)

Example 1. (Con.)

STAND GROWTH PROGNOSIS SYSTEM — VERSION 5.0 -- INLAND EMPIRE (TEST)

STAND ID: EXAMPLE1 — MANAGEMENT CODE: NONE — EVENT MONITOR USER'S GUIDE EXAMPLE 1.

STAND COMPOSITION (BASED ON STOCKABLE AREA)

YEAR	STAND ATTRIBUTES	PERCENTILE POINTS IN THE DISTRIBUTION OF STAND ATTRIBUTES BY DBH (DBH IN INCHES): 10	30	50	70	90	100	TOTAL/ACRE OF STAND ATTRIBUTES	DISTRIBUTION OF STAND ATTRIBUTES BY SPECIES AND 3 USER-DEFINED SUBCLASSES			
1972	TREES	0.1	0.1	0.1	0.1	0.1	19.9	1916. TREES	70.% AF2,	11.% AF1,	4.% --1,	4.% WP1
	VOLUME:											
	TOTAL	11.2	11.2	19.9	19.9	19.9	19.9	161. CUFT	63.% S2,	37.% AF2,	0.% AF1,	0.% --1
	MERCH	11.2	11.2	19.9	19.9	19.9	19.9	137. CUFT	62.% S2,	38.% AF2,	0.% ---,	0.% ---
	MERCH	11.2	19.9	19.9	19.9	19.9	19.9	777. BDFT	70.% S2,	30.% AF2,	0.% ---,	0.% ---
	ACCRETION	0.1	0.1	3.2	11.2	19.9	19.9	14. CUFT/YR	62.% AF2,	34.% S2,	1.% AF1,	1.% --2
	MORTALITY	0.1	0.1	0.1	3.2	19.9	19.9	0. CUFT/YR	72.% AF2,	21.% S2,	6.% AF1,	0.% --1
1982	TREES	0.1	0.7	0.8	1.2	1.5	23.1	1654. TREES	70.% AF2,	11.% AF1,	4.% --1,	4.% WP1
	VOLUME:											
	TOTAL	1.4	6.2	12.8	21.4	23.1	23.1	297. CUFT	50.% S2,	49.% AF2,	1.% AF1,	0.% --2
	MERCH	12.8	14.6	20.6	21.4	23.1	23.1	188. CUFT	57.% S2,	43.% AF2,	0.% ---,	0.% ---
	MERCH	12.8	14.6	21.4	21.4	23.1	23.1	1095. BDFT	65.% S2,	35.% AF2,	0.% ---,	0.% ---
	ACCRETION	0.9	1.4	1.5	4.0	12.8	23.1	35. CUFT/YR	72.% AF2,	21.% S2,	2.% AF1,	2.% WP2
	MORTALITY	0.7	0.9	1.2	1.5	12.8	23.1	1. CUFT/YR	75.% AF2,	12.% S2,	6.% AF1,	2.% --2
1992	TREES	0.8	1.2	2.0	2.4	3.6	26.2	1401. TREES	72.% AF2,	11.% AF1,	4.% --1,	4.% WP1
	VOLUME:											
	TOTAL	2.2	3.3	6.6	15.3	23.7	26.2	644. CUFT	61.% AF2,	34.% S2,	2.% AF1,	1.% WP2
	MERCH	8.2	14.4	16.2	22.9	24.6	26.2	287. CUFT	59.% S2,	41.% AF2,	0.% ---,	0.% ---
	MERCH	13.5	16.1	22.1	22.9	24.6	26.2	1583. BDFT	64.% S2,	36.% AF2,	0.% ---,	0.% ---
	ACCRETION	1.6	2.7	3.3	3.6	14.4	26.2	56. CUFT/YR	75.% AF2,	16.% S2,	2.% AF1,	2.% WP2
	MORTALITY	1.2	2.2	3.3	3.6	21.3	26.2	3. CUFT/YR	68.% AF2,	18.% S2,	5.% AF1,	2.% --2

(con.)

2002	TREES	1.5	2.2	3.2	4.0	5.2	27.5	1222.	TREES	73.% AF2,	10.% AF1,	3.% --1,	3.% WP1
	VOLUME:												
	TOTAL	3.2	4.9	5.2	10.8	25.1	27.5	1175.	CUFT	68.% AF2,	26.% S2,	2.% AF1,	2.% WP2
	MERCH	8.2	14.3	19.3	24.0	25.3	27.5	434.	CUFT	63.% S2,	37.% AF2,	0.% ---,	0.% ---
	MERCH	10.3	15.7	19.6	25.1	25.3	27.5	2332.	BDFT	64.% S2,	36.% AF2,	0.% ---,	0.% ---
	ACCRETION	3.2	3.8	4.9	5.7	11.8	27.5	80.	CUFT/YR	78.% AF2,	14.% S2,	4.% WP2,	2.% AF1
	MORTALITY	2.3	3.3	4.9	6.4	19.6	27.5	10.	CUFT/YR	69.% AF2,	19.% S2,	4.% AF1,	3.% WP2
2012	TREES	1.9	2.8	4.3	5.8	6.3	28.6	1047.	TREES	75.% AF2,	9.% AF1,	3.% WP1,	3.% --1
	VOLUME:												
	TOTAL	4.3	5.8	5.9	9.6	22.6	28.6	1879.	CUFT	72.% AF2,	21.% S2,	2.% WP2,	2.% AF1
	MERCH	8.6	9.6	14.3	21.1	26.3	28.6	761.	CUFT	52.% AF2,	48.% S2,	0.% ---,	0.% ---
	MERCH	9.6	12.2	17.5	22.6	26.6	28.6	3982.	BDFT	51.% S2,	49.% AF2,	0.% ---,	0.% ---
	REMOVAL	2.1	3.0	4.3	5.7	5.9	6.3	747.	TREES	92.% AF2,	4.% WP2,	3.% --2,	1.% LP2
	VOLUME:												
	TOTAL	3.4	5.1	5.7	5.9	5.9	6.3	870.	CUFT	94.% AF2,	5.% WP2,	1.% LP2,	0.% --2
	MERCH	0.0	0.0	0.0	0.0	0.0	6.3	0.	CUFT	0.% ---,	0.% ---,	0.% ---,	0.% ---
	MERCH	0.0	0.0	0.0	0.0	0.0	6.3	0.	BDFT	0.% ---,	0.% ---,	0.% ---,	0.% ---
	RESIDUAL	1.6	2.4	3.3	6.6	9.6	28.6	300.	TREES	33.% AF1,	32.% AF2,	12.% WP1,	10.% --1
	ACCRETION	4.4	9.6	9.6	9.6	14.3	28.6	75.	CUFT/YR	68.% AF2,	20.% S2,	6.% AF1,	3.% WP1
	MORTALITY	2.8	5.2	9.6	14.3	25.0	28.6	5.	CUFT/YR	41.% AF2,	29.% S2,	12.% AF1,	8.% WP1
2022	TREES	2.7	4.1	5.5	7.9	15.4	30.7	253.	TREES	37.% AF2,	31.% AF1,	10.% WP1,	10.% S2
	VOLUME:												
	TOTAL	7.7	12.5	15.4	15.4	26.2	30.7	1714.	CUFT	60.% AF2,	31.% S2,	4.% AF1,	2.% WP1
	MERCH	9.0	15.4	15.4	15.6	28.2	30.7	1425.	CUFT	64.% AF2,	35.% S2,	0.% AF1,	0.% WP2
	MERCH	11.1	15.4	15.4	18.3	28.2	30.7	7415.	BDFT	60.% AF2,	39.% S2,	0.% AF1,	0.% WP2
	ACCRETION	4.9	9.0	15.1	15.4	16.4	30.7	62.	CUFT/YR	57.% AF2,	25.% S2,	9.% AF1,	5.% WP1
	MORTALITY	5.3	9.0	15.4	15.4	23.8	30.7	9.	CUFT/YR	58.% AF2,	26.% S2,	7.% AF1,	4.% LP1
2032	TREES	3.6	5.3	7.1	11.4	17.0	31.8	230.	TREES	38.% AF2,	31.% AF1,	10.% S2,	10.% WP1
	VOLUME:												
	TOTAL	7.5	14.1	17.0	17.0	24.6	31.8	2248.	CUFT	59.% AF2,	29.% S2,	6.% AF1,	3.% WP1
	MERCH	8.7	16.3	17.0	17.0	27.4	31.8	1920.	CUFT	63.% AF2,	32.% S2,	2.% AF1,	1.% LP1
	MERCH	11.4	16.5	17.0	17.0	29.0	31.8	10096.	BDFT	60.% AF2,	38.% S2,	1.% AF1,	1.% LP1
	ACCRETION	6.2	8.7	16.5	17.0	17.0	31.8	81.	CUFT/YR	70.% AF2,	14.% S2,	10.% AF1,	4.% WP1
	MORTALITY	6.0	8.7	16.9	17.0	23.8	31.8	18.	CUFT/YR	59.% AF2,	24.% S2,	8.% AF1,	5.% WP1

(con.)

Example 1. (Con.)

2042	TREES	4.7	6.4	9.2	13.8	19.2	32.2	200.	TREES	39.% AF2,	30.% AF1,	11.% S2,	10.% WP1
	VOLUME:												
	TOTAL	8.1	14.3	19.2	19.2	24.9	32.2	2873.	CUFT	62.% AF2,	25.% S2,	7.% AF1,	3.% WP1
	MERCH	11.0	14.7	19.2	19.2	25.2	32.2	2528.	CUFT	66.% AF2,	27.% S2,	3.% AF1,	2.% LP1
	MERCH	11.9	15.2	19.2	19.2	28.6	32.2	13325.	BDFT	63.% AF2,	32.% S2,	3.% AF1,	1.% WP1
	ACCRETION	7.8	13.8	19.2	19.2	19.2	32.2	86.	CUFT/YR	70.% AF2,	14.% S2,	10.% AF1,	3.% WP1
	MORTALITY	6.7	11.9	17.5	19.2	24.9	32.2	24.	CUFT/YR	56.% AF2,	24.% S2,	9.% AF1,	6.% WP1
2052	TREES	5.9	7.6	11.0	15.6	21.6	33.4	176.	TREES	41.% AF2,	30.% AF1,	12.% S2,	9.% WP1
	VOLUME:												
	TOTAL	9.3	15.6	21.6	21.6	25.1	33.4	3496.	CUFT	65.% AF2,	23.% S2,	7.% AF1,	3.% WP1
	MERCH	11.0	16.4	21.6	21.6	25.7	33.4	3178.	CUFT	67.% AF2,	23.% S2,	5.% AF1,	2.% WP1
	MERCH	12.7	18.3	21.6	21.6	25.7	33.4	19178.	BDFT	69.% AF2,	24.% S2,	4.% AF1,	1.% WP1
	ACCRETION	8.9	15.6	21.6	21.6	21.6	33.4	99.	CUFT/YR	71.% AF2,	13.% S2,	10.% AF1,	3.% WP1
	MORTALITY	7.8	12.7	19.0	21.6	23.2	33.4	35.	CUFT/YR	61.% AF2,	20.% S2,	9.% AF1,	5.% WP1
2062	TREES	6.6	8.9	12.0	18.2	24.3	35.1	152.	TREES	42.% AF2,	30.% AF1,	12.% S2,	8.% WP1
	VOLUME:												
	TOTAL	10.8	18.1	24.3	24.3	24.3	35.1	4141.	CUFT	66.% AF2,	20.% S2,	8.% AF1,	3.% WP1
	MERCH	12.0	18.2	24.3	24.3	24.3	35.1	3851.	CUFT	68.% AF2,	21.% S2,	7.% AF1,	2.% WP1
	MERCH	12.3	18.2	24.3	24.3	24.3	35.1	22021.	BDFT	68.% AF2,	23.% S2,	5.% AF1,	2.% WP1
	ACCRETION	9.9	15.6	18.3	24.3	24.3	35.1	82.	CUFT/YR	68.% AF2,	14.% S2,	12.% AF1,	3.% WP1
	MORTALITY	8.3	13.8	20.4	24.3	24.3	35.1	33.	CUFT/YR	60.% AF2,	18.% S2,	11.% AF1,	6.% WP1
2072	TREES	7.6	10.3	13.3	20.0	25.7	35.7	134.	TREES	44.% AF2,	29.% AF1,	13.% S2,	8.% WP1
	VOLUME:												
	TOTAL	11.5	18.8	25.7	25.7	25.7	35.7	4624.	CUFT	67.% AF2,	19.% S2,	8.% AF1,	3.% WP1
	MERCH	12.4	19.4	25.7	25.7	25.7	35.7	4357.	CUFT	68.% AF2,	20.% S2,	8.% AF1,	2.% WP1
	MERCH	13.2	20.0	25.7	25.7	25.7	35.7	24626.	BDFT	68.% AF2,	22.% S2,	6.% AF1,	2.% WP1

(con.)

STAND GROWTH PROGNOSIS SYSTEM VERSION 5.0 -- INLAND EMPIRE (TEST)

STAND ID; EXAMPLE1 MANAGEMENT CODE: NONE EVENT MONITOR USER'S GUIDE EXAMPLE 1.

	ATTRIBUTES OF SELECTED SAMPLE TREES								ADDITIONAL STAND ATTRIBUTES (BASED ON STOCKABLE AREA)					
YEAR	INITIAL TREES/A %TILE	SPECIES	DBH (INCHES)	HEIGHT (FEET)	LIVE CROWN RATIO	PAST DBH GROWTH (INCHES)	BASAL AREA %TILE	TREES PER ACRE	STAND AGE	QUADRATIC MEAN DBH (INCHES)	TREES PER ACRE	BASAL AREA (SQFT/A)	TOP HEIGHT LARGEST 40/A (FT)	CROWN COMP FACTOR
1972						(10 YRS)								
	10	LP1	0.10	2.00	35	0.00	0.1	27.27						
	30	AF2	0.10	4.62	45	0.09	0.5	545.45						
	50	AF2	0.10	1.00	45	0.00	0.8	272.73						
	70	AF2	0.10	2.00	55	0.00	1.0	327.27						
	90	WP1	0.10	1.00	45	0.00	1.1	27.27						
	100	S2	19.90	70.00	65	2.30	100.0	1.68						
									10	0.9	1916.	9.	18.9	8.5
1982						(10 YRS)								
	10	LP1	0.82	6.16	35	0.70	5.8	22.11						
	30	AF2	1.50	10.77	45	1.31	37.7	472.89						
	50	AF2	0.10	3.03	45	0.00	0.0	236.45						
	70	AF2	0.89	7.07	55	0.74	10.1	283.74						
	90	WP1	0.10	4.21	45	0.00	0.1	22.67						
	100	S2	21.44	73.62	65	1.48	94.2	1.68						
									20	1.5	1654.	21.	25.1	27.7
1992						(10 YRS)								
	10	LP1	1.61	11.51	35	0.77	7.4	16.94						
	30	AF2	3.26	16.77	60	1.65	49.6	451.65						
	50	AF2	0.96	7.54	45	0.80	2.1	183.30						
	70	AF2	2.17	13.13	55	1.20	16.8	241.64						
	90	WP1	1.68	13.65	45	1.52	8.2	16.32						
	100	S2	22.91	77.02	65	1.40	95.5	1.68						
									30	2.7	1401.	54.	31.2	74.1
2002						(10 YRS)								
	10	LP1	3.05	21.16	56	1.39	13.2	13.34						
	30	AF2	4.93	19.72	64	1.56	56.1	433.12						
	50	AF2	1.74	11.34	45	0.74	2.8	153.01						
	70	AF2	3.20	17.00	84	0.96	18.2	224.83						
	90	WP1	2.92	19.72	45	1.20	10.2	15.34						
	100	S2	25.06	80.66	66	2.06	97.7	1.64						
									40	3.9	1222.	101.	36.5	132.2
2012						(10 YRS)								
	10	LP1	4.31	26.34	56	1.22	12.4	11.98						
	30	AF2	5.90	24.45	57	0.91	59.5	400.35						
	50	AF2	2.71	16.38	45	0.90	4.8	124.77						
	70	AF2	5.72	20.41	85	2.36	34.2	199.24						
	90	WP1	3.34	24.82	63	0.41	9.1	13.65						
	100	S2	26.32	83.61	59	1.20	98.5	1.55						
									50	5.2	1047.	152.	37.7	189.3
									RESIDUAL:	6.5	300.	69.	37.7	73.3

(con.)

Example 1. (Con.)

2022						(10 YRS)								
	10	LP1	5.95	33.60	59	1.60	10.0	10.81						
	30	AF2	6.46	28.94	60	0.52	11.5	7.28						
	50	AF2	3.68	18.43	46	0.91	2.5	2.19						
	70	AF2	7.28	27.71	87	1.46	12.0	3.84						
	90	WP1	4.96	32.30	66	1.56	7.6	9.80						
	100	S2	28.20	86.81	65	1.80	98.2	1.50						
									60	9.0	253.	113.	41.5	114.2
2032						(10 YRS)								
	10	LP1	7.07	38.56	58	1.08	11.0	10.07						
	30	AF2	7.48	33.84	57	0.96	12.4	5.99						
	50	AF2	5.26	24.00	44	1.49	4.5	1.90						
	70	AF2	11.97	34.44	90	4.39	29.5	3.61						
	90	WP1	5.96	39.15	64	0.96	7.7	9.13						
	100	S2	29.75	89.70	62	1.48	99.2	1.44						
									70	10.4	230.	137.	45.7	134.0
2042						(10 YRS)								
	10	LP1	8.01	43.15	56	0.91	11.6	8.82						
	30	AF2	8.12	38.66	53	0.60	12.0	5.39						
	50	AF2	6.51	27.32	42	1.17	5.5	1.75						
	70	AF2	13.72	40.07	86	1.64	28.7	3.40						
	90	WP1	6.52	44.89	62	0.54	6.1	7.86						
	100	S2	31.40	92.53	59	1.58	99.7	1.35						
									80	12.2	200.	162.	51.0	155.4
2052						(10 YRS)								
	10	LP1	9.12	47.89	55	1.07	10.7	7.43						
	30	AF2	8.72	43.20	50	0.56	9.1	4.49						
	50	AF2	6.89	31.65	38	0.36	3.7	1.58						
	70	AF2	15.87	46.01	84	2.02	34.3	3.14						
	90	WP1	7.17	49.85	61	0.62	5.1	5.96						
	100	S2	32.76	95.10	57	1.30	99.7	1.26						
									90	13.8	176.	182.	56.3	171.0
2062						(10 YRS)								
	10	LP1	10.59	52.93	54	1.42	11.2	6.47						
	30	AF2	9.68	48.23	48	0.90	8.3	3.69						
	50	AF2	7.62	35.50	36	0.68	2.8	1.18						
	70	AF2	18.09	51.90	82	2.08	33.3	2.87						
	90	WP1	7.70	55.34	60	0.51	3.2	4.64						
	100	S2	35.11	98.01	55	2.25	100.0	1.15						
									100	15.5	152.	200.	61.6	183.8
2072						(10 YRS)								
	10	LP1	10.91	56.05	52	0.31	8.4	5.94						
	30	AF2	10.31	52.58	47	0.59	7.1	3.26						
	50	AF2	8.37	40.23	35	0.70	2.9	0.98						
	70	AF2	19.69	57.11	81	1.50	35.1	2.67						
	90	WP1	8.67	61.05	60	0.94	3.7	3.44						
	100	S2	35.72	99.95	54	0.59	100.0	1.07						
									110	16.9	134.	210.	65.8	189.6

(con.)

STAND GROWTH PROGNOSIS SYSTEM VERSION 5.0 -- INLAND EMPIRE (TEST)

SUMMARY STATISTICS (BASED ON TOTAL STAND AREA)

YEAR	AGE	TREES /ACRE	VOLUME PER ACRE TOTAL CU FT	MERCH CU FT	MERCH BD FT	REMOVALS PER ACRE TREES /ACRE	TOTAL CU FT	MERCH CU FT	MERCH BD FT	BA/ ACRE SQFT	CCF	TOP HT FT	GROWTH PRD YRS	ACC CUFT/YR	MOR	STAND SAMPLE WEIGHT	IDENTIFIERS STAND	MGMT
1972	10	1171	98	84	475	0	0	0	0	5	5	19	10	8	0	18	EXAMPLE1	NONE
1982	20	1011	181	115	669	0	0	0	0	13	17	25	10	22	0	18	EXAMPLE1	NONE
1992	30	856	393	175	967	0	0	0	0	33	45	31	10	34	2	18	EXAMPLE1	NONE
2002	40	747	718	265	1425	0	0	0	0	62	81	36	10	49	6	18	EXAMPLE1	NONE
2012	50	640	1149	465	2433	457	532	0	0	42	45	38	10	46	3	18	EXAMPLE1	NONE
2022	60	155	1048	871	4531	0	0	0	0	69	70	41	10	38	5	18	EXAMPLE1	NONE
2032	70	141	1374	1173	6170	0	0	0	0	83	82	46	10	49	11	18	EXAMPLE1	NONE
2042	80	122	1756	1545	8143	0	0	0	0	99	95	51	10	52	14	18	EXAMPLE1	NONE
2052	90	108	2136	1942	11720	0	0	0	0	111	105	56	10	61	21	18	EXAMPLE1	NONE
2062	100	93	2531	2354	13457	0	0	0	0	122	112	62	10	50	20	18	EXAMPLE1	NONE
2072	110	82	2825	2663	15049	0	0	0	0	128	116	66	0	0	0	18	EXAMPLE1	NONE

ACTIVITY SUMMARY

STAND ID= EXAMPLE1 MANAGEMENT ID= NONE EVENT MONITOR USER'S GUIDE EXAMPLE 1.

CYCLE	DATE	EXTENSION	KEYWORD	DATE	ACTIVITY DISPOSITION	PARAMETERS:			
1	1972								
2	1982								
3	1992								
4	2002								
5	2012								
		BASE	THINBTA	2012	DONE IN 2012	300.00	0.98	0.00	999.00
6	2022								
7	2032								
8	2042								
9	2052								
10	2062								

Example 2.

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                         STAND GROWTH PROGNOSIS SYSTEM         VERSION 5.1 -- INLAND EMPIRE
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                                        OPTIONS SELECTED BY INPUT
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KEYWORD    PARAMETERS:
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STDIDENT
           STAND ID= EXAMPLE2          EVENT MONITOR USER'S GUIDE, EXAMPLE 2

INVYEAR    INVENTORY YEAR= 1972

NUMCYCLE   NUMBER OF CYCLES= 15

IF         MINIMUM DELAY TIME BETWEEN RESPONSES TO THE EVENT =   999

           PAI LT MAI

THEN       ACTIVITIES WHICH FOLLOW WILL NOT BE SCHEDULED UNTIL THE EVENT HAPPENS (WHEN THE LOGICAL EXPRESSION IS TRUE).

THINATA    DATE/CYCLE=    0; RESIDUAL=    0.00; PROPORTION OF SELECTED TREES REMOVED= 1.000
           DBH OF REMOVED TREES WILL RANGE FROM   0.0 TO 999.0 INCHES

ESTAB      REGENERATION ESTABLISHMENT OPTIONS:

BURNPREP   DATE/CYCLE=    1; % GROUND=  80.0

MECHPREP   DATE/CYCLE=    1; % GROUND=  20.0

PLANT      DATE/CYCLE=    2; SPECIES= 2.; TREES/ACRE=  300.; % SURVIVAL= 90.00

PLANT      DATE/CYCLE=    2; SPECIES= 8.; TREES/ACRE=  300.; % SURVIVAL= 90.00

STOCKADJ   DATE/CYCLE=    9; MULTIPLIER= -1.00
           NATURAL REGENERATION IS CANCELLED -- ONLY PLANTED TREES ARE TALLIED.

RESETAGE   DATE/CYCLE=    0; NEW AGE=    0.

END        REGENERATION TALLY ONE SCHEDULED FOR 9, AND TALLY TWO FOR 19 YEARS AFTER IF-EVENT IS TRUE.
           END OF ESTABLISHMENT KEYWORDS

ENDIF      ACTIVITIES WHICH FOLLOW WILL BE SCHEDULED.

IF         MINIMUM DELAY TIME BETWEEN RESPONSES TO THE EVENT =    20

           BBA GT 150 AND AGE LT 130

THEN       ACTIVITIES WHICH FOLLOW WILL NOT BE SCHEDULED UNTIL THE EVENT HAPPENS (WHEN THE LOGICAL EXPRESSION IS TRUE).

THINBBA    DATE/CYCLE=    0; RESIDUAL=  130.00; PROPORTION OF SELECTED TREES REMOVED= 0.980
           DBH OF REMOVED TREES WILL RANGE FROM   0.0 TO 999.0 INCHES

ENDIF      ACTIVITIES WHICH FOLLOW WILL BE SCHEDULED.

STDINFO    FOREST CODE= 18; HABITAT TYPE=680; AGE=  150; ASPECT CODE=  8.; SLOPE CODE=  5.
           ELEVATION(100'S FEET)= 53.0; SITE INDEX=   0.

PROCESS    PROCESS THE STAND.
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(con.)

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                                        OPTIONS SELECTED BY DEFAULT
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TREEFMT     (23X,I4,3X, F2.0,I1, A3,F3.1,F2.1,3X,F3.0,T63,F3.0    ,T60,F3.1,T48,  I1,3X, I2,
            2I1,T66,2I1,I3, 2I1)

DESIGN      BASAL AREA FACTOR= 40.0; INVERSE OF FIXED PLOT AREA=  300.0; BREAK DBH=    5.0
            NUMBER OF PLOTS=     9; NON-STOCKABLE PLOTS=     0; STAND SAMPLING WEIGHT=   9.00000
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                                              ACTIVITY SCHEDULE

STAND ID= EXAMPLE2    MANAGEMENT ID= NONE       EVENT MONITOR USER'S GUIDE, EXAMPLE 2
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CYCLE  DATE  EXTENSION  KEYWORD   DATE  PARAMETERS:
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   1   1972
   2   1982
   3   1992
   4   2002
   5   2012
   6   2022
   7   2032
   8   2042
   9   2052
  10   2062
  11   2072
  12   2082
  13   2092
  14   2102
  15   2112
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(con.)

Example 2. (Con.)

CALIBRATION STATISTICS:

	DF	WP	S	GF	AF	LP	L
NUMBER OF RECORDS PER SPECIES	19	6	2	5	6	2	3
NUMBER OF RECORDS CODED AS RECENT MORTALITY	0	0	0	0	0	0	0
NUMBER OF RECORDS WITH MISSING HEIGHTS	0	0	0	0	0	0	0
NUMBER OF RECORDS WITH BROKEN OR DEAD TOPS	0	0	1	0	0	0	0
NUMBER OF RECORDS WITH MISSING CROWN RATIOS	0	0	0	0	0	0	0
NUMBER OF RECORDS AVAILABLE FOR SCALING THE DIAMETER INCREMENT MODEL	18	5	2	3	4	2	3
RATIO OF STANDARD ERRORS (INPUT DBH GROWTH DATA : MODEL)	1.12	1.17	1.00	1.00	1.00	1.00	1.00
WEIGHT GIVEN TO THE INPUT GROWTH DATA WHEN DBH GROWTH MODEL SCALE FACTORS WERE COMPUTED	0.73	0.89	0.00	0.00	0.00	0.00	0.00
INITIAL SCALE FACTORS FOR THE DBH INCREMENT MODEL	1.14	1.54	1.00	1.00	1.00	1.00	1.00
NUMBER OF RECORDS AVAILABLE FOR SCALING THE SMALL TREE HEIGHT INCREMENT MODEL	0	0	0	0	0	0	0
INITIAL SCALE FACTORS FOR THE SMALL TREE HEIGHT INCREMENT MODEL	1.00	1.00	1.00	1.00	1.00	1.00	1.00

(con.)

STAND GROWTH PROGNOSIS SYSTEM VERSION 5.1 -- INLAND EMPIRE

STAND ID: EXAMPLE2 MANAGEMENT CODE: NONE EVENT MONITOR USER'S GUIDE, EXAMPLE 2

STAND COMPOSITION (BASED ON STOCKABLE AREA)

YEAR	STAND ATTRIBUTES	PERCENTILE POINTS IN THE DISTRIBUTION OF STAND ATTRIBUTES BY DBH (DBH IN INCHES) 10	30	50	70	90	100	TOTAL/ACRE OF STAND ATTRIBUTES	DISTRIBUTION OF STAND ATTRIBUTES BY SPECIES AND 3 USER-DEFINED SUBCLASSES			
1972	TREES	0.1	0.1	2.3	7.7	16.6	32.8	371. TREES	22.% AF2,	20.% GF2,	14.% WP2,	12.% L1
	VOLUME:											
	TOTAL	10.1	17.6	21.8	25.8	29.5	32.8	6229. CUFT	39.% DF1,	18.% WP2,	13.% DF2,	7.% LP2
	MERCH	11.3	18.8	21.9	25.8	29.5	32.8	5841. CUFT	40.% DF1,	19.% WP2,	14.% DF2,	7.% LP2
	MERCH	12.4	18.8	22.1	26.0	29.5	32.8	30364. BDFT	42.% DF1,	18.% WP2,	15.% DF2,	6.% LP2
	ACCRETION	7.7	10.5	17.6	21.9	27.5	32.8	97. CUFT/YR	32.% DF1,	18.% WP2,	9.% AF2,	7.% GF2
	MORTALITY	7.7	14.2	19.0	22.7	27.5	32.8	28. CUFT/YR	30.% DF1,	17.% WP2,	14.% LP2,	14.% DF2
1982	TREES	0.1	1.9	7.1	11.0	19.7	33.9	280. TREES	20.% AF2,	19.% GF2,	13.% L1,	12.% WP2
	VOLUME:											
	TOTAL	11.1	17.9	22.3	26.0	30.4	33.9	6918. CUFT	38.% DF1,	18.% WP2,	12.% DF2,	6.% GF2
	MERCH	11.2	18.0	22.6	26.3	30.4	33.9	6619. CUFT	39.% DF1,	18.% WP2,	13.% DF2,	6.% GF2
	MERCH	12.2	19.6	22.8	26.3	30.4	33.9	34384. BDFT	41.% DF1,	18.% WP2,	14.% DF2,	6.% GF2
	ACCRETION	9.0	12.2	17.1	22.7	28.3	33.9	98. CUFT/YR	30.% DF1,	17.% WP2,	9.% AF2,	8.% GF1
	MORTALITY	8.4	12.8	19.3	23.4	29.7	33.9	35. CUFT/YR	30.% DF1,	17.% WP2,	14.% LP2,	12.% L1
1992	TREES	0.1	2.3	8.9	12.9	22.2	34.8	218. TREES	17.% AF2,	16.% GF2,	14.% L1,	13.% DF1
	VOLUME:											
	TOTAL	12.0	18.1	23.1	26.5	31.2	34.8	7552. CUFT	37.% DF1,	18.% WP2,	12.% DF2,	6.% GF2
	MERCH	12.2	18.3	23.1	26.5	31.2	34.8	7271. CUFT	38.% DF1,	18.% WP2,	12.% DF2,	6.% GF2
	MERCH	12.9	18.8	23.5	26.8	31.4	34.8	38004. BDFT	40.% DF1,	18.% WP2,	13.% DF2,	6.% GF2
	ACCRETION	10.6	13.3	17.7	23.5	28.5	34.8	93. CUFT/YR	30.% DF1,	15.% WP2,	11.% AF2,	10.% GF1
	MORTALITY	9.3	13.7	20.2	24.4	30.6	34.8	43. CUFT/YR	30.% DF1,	17.% WP2,	12.% LP2,	11.% L1
2002	TREES	0.9	7.8	11.6	14.8	23.9	35.4	177. TREES	16.% AF2,	15.% DF1,	14.% GF2,	14.% L1
	VOLUME:											
	TOTAL	13.0	18.6	23.4	27.1	31.9	35.4	8053. CUFT	37.% DF1,	18.% WP2,	11.% DF2,	7.% GF2
	MERCH	13.3	18.7	23.5	27.3	31.9	35.4	7798. CUFT	37.% DF1,	18.% WP2,	11.% DF2,	7.% GF2
	MERCH	13.4	18.9	23.9	27.4	31.9	35.4	41171. BDFT	39.% DF1,	17.% WP2,	12.% DF2,	6.% GF2
	ACCRETION	10.0	13.4	16.7	23.2	29.4	35.4	95. CUFT/YR	27.% DF1,	13.% GF1,	12.% WP2,	11.% S2
	MORTALITY	9.5	14.5	21.2	25.5	31.6	35.4	50. CUFT/YR	30.% DF1,	20.% WP2,	10.% LP2,	10.% DF2

(con.)

Example 2. (Con.)

2012	TREES	2.3	9.3	13.6	16.3	25.0	35.7	150.	TREES	17.% DF1,	15.% AF2,	13.% L1,	13.% GF2
	VOLUME:												
	TOTAL	13.8	18.8	24.1	27.6	32.8	35.7	8504.	CUFT	36.% DF1,	17.% WP2,	10.% DF2,	7.% GF2
	MERCH	14.0	19.1	24.1	27.7	33.0	35.7	8255.	CUFT	37.% DF1,	17.% WP2,	11.% DF2,	7.% GF2
	MERCH	14.6	19.3	24.2	28.0	33.0	35.7	44133.	BDFT	38.% DF1,	16.% WP2,	11.% DF2,	7.% GF2
	ACCRETION	12.8	15.4	18.2	24.1	30.1	35.7	96.	CUFT/YR	26.% DF1,	14.% GF1,	13.% WP2,	12.% AF2
	MORTALITY	10.8	15.9	21.9	26.0	32.0	35.7	55.	CUFT/YR	30.% DF1,	20.% WP2,	9.% DF2,	9.% L1
2022	TREES	3.4	10.8	14.7	18.9	26.3	36.2	129.	TREES	18.% DF1,	15.% AF2,	13.% S2,	12.% L1
	VOLUME:												
	TOTAL	14.5	19.2	24.3	28.1	33.5	36.2	8912.	CUFT	36.% DF1,	16.% WP2,	10.% DF2,	7.% GF2
	MERCH	14.6	19.2	24.3	28.2	33.8	36.2	8665.	CUFT	36.% DF1,	16.% WP2,	10.% DF2,	7.% GF2
	MERCH	15.0	19.4	24.6	28.3	33.8	36.2	46789.	BDFT	37.% DF1,	15.% WP2,	10.% DF2,	7.% S2
	REMOVAL	3.4	10.8	14.7	18.9	26.3	36.2	129.	TREES	18.% DF1,	15.% AF2,	13.% S2,	12.% L1
	VOLUME:												
	TOTAL	14.5	19.2	24.3	28.1	33.5	36.2	8912.	CUFT	36.% DF1,	16.% WP2,	10.% DF2,	7.% GF2
	MERCH	14.6	19.2	24.3	28.2	33.8	36.2	8665.	CUFT	36.% DF1,	16.% WP2,	10.% DF2,	7.% GF2
	MERCH	15.0	19.4	24.6	28.3	33.8	36.2	46789.	BDFT	37.% DF1,	15.% WP2,	10.% DF2,	7.% S2
	RESIDUAL	7.5	7.5	7.5	7.5	7.5	7.5	0.	TREES	100.% L1,	0.% ---,	0.% ---,	0.% ---
	ACCRETION	7.5	7.5	7.5	7.5	7.5	7.5	0.	CUFT/YR	100.% L1,	0.% ---,	0.% ---,	0.% ---
	MORTALITY	7.5	7.5	7.5	7.5	7.5	7.5	0.	CUFT/YR	100.% L1,	0.% ---,	0.% ---,	0.% ---
2032	TREES	0.3	0.4	0.4	0.4	0.4	8.9	540.	TREES	50.% L1,	50.% S1,	0.% ---,	0.% ---
	VOLUME:												
	TOTAL	8.1	8.1	8.9	8.9	8.9	8.9	0.	CUFT	100.% L1,	0.% ---,	0.% ---,	0.% ---
	MERCH	8.1	8.1	8.9	8.9	8.9	8.9	0.	CUFT	100.% L1,	0.% ---,	0.% ---,	0.% ---
	MERCH	8.1	8.1	8.9	8.9	8.9	8.9	0.	BDFT	100.% L1,	0.% ---,	0.% ---,	0.% ---
	ACCRETION	0.3	0.4	0.4	0.4	0.4	8.9	3.	CUFT/YR	51.% S1,	49.% L1,	0.% ---,	0.% ---
	MORTALITY	8.1	8.1	8.1	8.1	8.9	8.9	0.	CUFT/YR	100.% L1,	0.% ---,	0.% ---,	0.% ---
2042	TREES	0.9	1.1	1.4	1.6	2.1	9.6	424.	TREES	56.% S1,	44.% L1,	0.% ---,	0.% ---
	VOLUME:												
	TOTAL	1.1	1.4	1.7	2.1	2.3	9.6	34.	CUFT	51.% S1,	49.% L1,	0.% ---,	0.% ---
	MERCH	9.2	9.2	9.6	9.6	9.6	9.6	0.	CUFT	100.% L1,	0.% ---,	0.% ---,	0.% ---
	MERCH	9.2	9.2	9.6	9.6	9.6	9.6	0.	BDFT	100.% L1,	0.% ---,	0.% ---,	0.% ---
	ACCRETION	1.2	1.4	1.7	2.1	2.3	9.6	21.	CUFT/YR	57.% L1,	43.% S1,	0.% ---,	0.% ---
	MORTALITY	0.9	1.2	1.4	1.7	2.1	9.6	0.	CUFT/YR	54.% L1,	46.% S1,	0.% ---,	0.% ---

(con.)

2052	TREES	1.9	2.6	3.3	3.9	4.7	10.5	387.	TREES	56.%	S1,	44.%	L1,	0.%	---,	0.%	---
	VOLUME:																
	TOTAL	2.8	3.7	4.0	4.5	5.3	10.5	245.	CUFT	56.%	L1,	44.%	S1,	0.%	---,	0.%	---
	MERCH	10.1	10.1	10.5	10.5	10.5	10.5	0.	CUFT	100.%	L1,	0.%	---,	0.%	---,	0.%	---
	MERCH	10.1	10.1	10.5	10.5	10.5	10.5	0.	BDFT	100.%	L1,	0.%	---,	0.%	---,	0.%	---
	ACCRETION	2.5	3.2	3.8	4.2	5.1	10.5	54.	CUFT/YR	53.%	S1,	47.%	L1,	0.%	---,	0.%	---
	MORTALITY	2.1	2.9	3.6	4.0	4.5	10.5	1.	CUFT/YR	65.%	L1,	35.%	S1,	0.%	---,	0.%	---
2062	TREES	3.6	4.8	5.4	6.0	7.4	13.4	373.	TREES	57.%	S1,	43.%	L1,	0.%	---,	0.%	---
	VOLUME:																
	TOTAL	4.7	5.5	6.0	6.9	7.5	13.4	778.	CUFT	50.%	S1,	50.%	L1,	0.%	---,	0.%	---
	MERCH	7.2	7.4	7.5	7.7	8.0	13.4	169.	CUFT	66.%	S1,	34.%	L1,	0.%	---,	0.%	---
	MERCH	7.2	7.4	7.5	7.7	8.0	13.4	614.	BDFT	63.%	S1,	37.%	L1,	0.%	---,	0.%	---
	ACCRETION	4.3	5.3	5.8	6.9	7.9	13.4	93.	CUFT/YR	63.%	S1,	37.%	L1,	0.%	---,	0.%	---
	MORTALITY	4.2	4.9	5.8	6.2	7.4	13.4	2.	CUFT/YR	68.%	L1,	32.%	S1,	0.%	---,	0.%	---
2072	TREES	5.4	6.5	7.2	8.3	9.3	15.0	358.	TREES	58.%	S1,	42.%	L1,	0.%	---,	0.%	---
	VOLUME:																
	TOTAL	6.3	7.2	8.2	9.1	10.1	15.0	1686.	CUFT	57.%	S1,	43.%	L1,	0.%	---,	0.%	---
	MERCH	7.3	8.1	8.9	9.2	10.6	15.0	1071.	CUFT	60.%	S1,	40.%	L1,	0.%	---,	0.%	---
	MERCH	7.4	8.2	9.0	9.2	11.3	15.0	4400.	BDFT	61.%	S1,	39.%	L1,	0.%	---,	0.%	---
	ACCRETION	6.4	7.3	8.3	9.2	10.6	15.0	128.	CUFT/YR	73.%	S1,	27.%	L1,	0.%	---,	0.%	---
	MORTALITY	5.8	6.7	7.7	8.8	9.8	15.0	9.	CUFT/YR	56.%	L1,	44.%	S1,	0.%	---,	0.%	---
2082	TREES	6.5	7.7	8.9	10.0	12.2	16.7	336.	TREES	59.%	S1,	41.%	L1,	0.%	---,	0.%	---
	VOLUME:																
	TOTAL	7.5	8.9	10.0	11.7	13.9	16.7	2879.	CUFT	65.%	S1,	35.%	L1,	0.%	---,	0.%	---
	MERCH	8.0	9.5	10.5	11.7	13.9	16.7	2422.	CUFT	66.%	S1,	34.%	L1,	0.%	---,	0.%	---
	MERCH	8.2	9.5	10.9	12.2	15.6	16.7	11338.	BDFT	69.%	S1,	31.%	L1,	0.%	---,	0.%	---
	REMOVAL	5.5	6.7	7.3	7.6	8.0	8.3	128.	TREES	57.%	L1,	43.%	S1,	0.%	---,	0.%	---
	VOLUME:																
	TOTAL	6.0	7.1	7.4	7.7	8.2	8.3	551.	CUFT	62.%	L1,	38.%	S1,	0.%	---,	0.%	---
	MERCH	7.3	7.4	7.6	8.0	8.3	8.3	325.	CUFT	68.%	L1,	32.%	S1,	0.%	---,	0.%	---
	MERCH	7.3	7.4	7.6	8.0	8.3	8.3	1259.	BDFT	70.%	L1,	30.%	S1,	0.%	---,	0.%	---
	RESIDUAL	8.6	9.4	9.9	11.4	13.3	16.7	208.	TREES	68.%	S1,	32.%	L1,	0.%	---,	0.%	---
	ACCRETION	8.7	9.7	11.4	12.2	13.9	16.7	114.	CUFT/YR	83.%	S1,	17.%	L1,	0.%	---,	0.%	---
	MORTALITY	8.7	9.5	10.0	11.6	13.9	16.7	11.	CUFT/YR	57.%	S1,	43.%	L1,	0.%	---,	0.%	---

(con.)

Example 2. (Con.)

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2092  TREES          9.8   10.5   11.3   13.2   15.8   19.2     198. TREES     69.% S1,  31.% L1,  0.% ---,  0.% ---
      VOLUME:
        TOTAL       10.2   11.2   13.1   14.4   18.5   19.2    3358. CUFT      76.% S1,  24.% L1,  0.% ---,  0.% ---
        MERCH       10.2   11.2   13.1   14.4   18.5   19.2    3101. CUFT      76.% S1,  24.% L1,  0.% ---,  0.% ---
        MERCH       10.3   11.6   13.3   14.6   18.5   19.2   16558. BDFT      80.% S1,  20.% L1,  0.% ---,  0.% ---

      ACCRETION     10.2   11.2   13.1   14.2   17.8   19.2     136. CUFT/YR   86.% S1,  14.% L1,  0.% ---,  0.% ---
      MORTALITY      9.9   10.6   11.5   13.5   17.8   19.2      25. CUFT/YR   60.% S1,  40.% L1,  0.% ---,  0.% ---

2102  TREES         11.0   11.8   13.4   14.9   19.1   21.5     182. TREES     71.% S1,  29.% L1,  0.% ---,  0.% ---
      VOLUME:
        TOTAL       11.1   13.2   14.6   16.8   20.7   21.5    4469. CUFT      80.% S1,  20.% L1,  0.% ---,  0.% ---
        MERCH       11.1   13.2   14.8   16.8   20.7   21.5    4192. CUFT      80.% S1,  20.% L1,  0.% ---,  0.% ---
        MERCH       11.5   13.5   15.5   17.2   21.0   21.5   24100. BDFT      85.% S1,  15.% L1,  0.% ---,  0.% ---

      ACCRETION     11.7   14.1   14.9   16.8   21.0   21.5     143. CUFT/YR   89.% S1,  11.% L1,  0.% ---,  0.% ---
      MORTALITY     10.9   12.0   14.2   16.0   20.7   21.5      36. CUFT/YR   68.% S1,  32.% L1,  0.% ---,  0.% ---

2112  TREES         11.4   12.8   15.5   17.2   20.4   25.0     166. TREES     72.% S1,  28.% L1,  0.% ---,  0.% ---
      VOLUME:
        TOTAL       12.3   14.9   17.1   18.9   23.8   25.0    5537. CUFT      83.% S1,  17.% L1,  0.% ---,  0.% ---
        MERCH       12.4   14.9   17.1   18.9   23.8   25.0    5243. CUFT      83.% S1,  17.% L1,  0.% ---,  0.% ---
        MERCH       12.4   15.6   17.2   19.0   23.8   25.0   31222. BDFT      87.% S1,  13.% L1,  0.% ---,  0.% ---

      REMOVAL       11.3   12.3   13.3   14.3   16.2   16.9     102. TREES     55.% S1,  45.% L1,  0.% ---,  0.% ---
      VOLUME:
        TOTAL       11.3   12.4   13.5   14.9   16.6   16.9    2365. CUFT      61.% S1,  39.% L1,  0.% ---,  0.% ---
        MERCH       11.4   12.4   13.5   14.9   16.6   16.9    2221. CUFT      61.% S1,  39.% L1,  0.% ---,  0.% ---
        MERCH       11.7   12.6   13.7   15.5   16.6   16.9   11871. BDFT      67.% S1,  33.% L1,  0.% ---,  0.% ---

      RESIDUAL      17.0   17.2   17.8   19.0   23.8   25.0      64. TREES     99.% S1,   1.% L1,  0.% ---,  0.% ---

      ACCRETION     17.1   17.3   18.9   21.7   23.8   25.0      76. CUFT/YR  100.% S1,   0.% L1,  0.% ---,  0.% ---
      MORTALITY     17.0   17.3   18.9   21.7   23.8   25.0       8. CUFT/YR   97.% S1,   3.% L1,  0.% ---,  0.% ---

2122  TREES         17.9   18.6   19.6   20.5   26.3   26.3      63. TREES     99.% S1,   1.% L1,  0.% ---,  0.% ---
      VOLUME:
        TOTAL       18.6   19.0   20.5   23.2   26.3   26.3    3857. CUFT      99.% S1,   1.% L1,  0.% ---,  0.% ---
        MERCH       18.6   19.0   20.5   23.2   26.3   26.3    3691. CUFT      99.% S1,   1.% L1,  0.% ---,  0.% ---
        MERCH       18.6   19.6   20.5   23.2   26.3   26.3   23940. BDFT     100.% S1,   0.% L1,  0.% ---,  0.% ---
```

(con.)

STAND GROWTH PROGNOSIS SYSTEM VERSION 5.1 -- INLAND EMPIRE

STAND ID; EXAMPLE2 MANAGEMENT CODE: NONE EVENT MONITOR USER'S GUIDE, EXAMPLE 2

	ATTRIBUTES OF SELECTED SAMPLE TREES								ADDITIONAL STAND ATTRIBUTES (BASED ON STOCKABLE AREA)					
YEAR	INITIAL TREES/A %TILE	SPECIES	DBH (INCHES)	HEIGHT (FEET)	LIVE CROWN RATIO	PAST DBH GROWTH (INCHES)	BASAL AREA %TILE	TREES PER ACRE	STAND AGE	QUADRATIC MEAN DBH (INCHES)	TREES PER ACRE	BASAL AREA (SQFT/A)	TOP HEIGHT LARGEST 40/A (FT)	CROWN COMP FACTOR
1972						(10 YRS)								
	10	AF2	0.10	1.00	45	0.00	0.0	33.33						
	30	GF2	0.10	1.00	35	0.00	0.0	33.33						
	50	GF2	2.30	8.00	35	0.53	0.9	33.33						
	70	WP2	7.70	52.00	15	1.20	11.6	13.74						
	90	L1	16.60	105.00	25	0.60	41.1	2.96						
	100	DF2	32.80	149.00	35	0.90	100.0	0.76						
									150	9.1	371.	166.	114.6	146.0
1982						(10 YRS)								
	10	AF2	0.10	3.05	45	0.00	0.0	18.16						
	30	GF2	0.10	2.93	35	0.00	0.0	19.60						
	50	GF2	2.30	10.68	35	0.00	0.6	25.07						
	70	WP2	8.35	59.04	14	0.63	10.2	13.12						
	90	L1	17.08	108.14	24	0.41	39.5	2.77						
	100	DF2	33.27	150.83	35	0.41	99.4	0.74						
									160	10.8	280.	179.	116.7	153.8
1992						(10 YRS)								
	10	AF2	0.10	4.29	45	0.00	0.0	9.75						
	30	GF2	0.10	4.03	35	0.00	0.0	11.38						
	50	GF2	2.30	14.11	35	0.00	0.4	16.74						
	70	WP2	8.93	65.80	13	0.55	7.2	11.59						
	90	L1	17.53	111.12	23	0.38	39.2	2.47						
	100	DF2	33.72	152.58	35	0.39	98.9	0.71						
									170	12.7	218.	190.	119.3	160.4
2002						(10 YRS)								
	10	AF2	0.73	5.67	45	0.59	0.0	5.18						
	30	GF2	0.86	6.28	35	0.70	0.0	6.54						
	50	GF2	2.47	17.69	35	0.15	0.2	11.02						
	70	WP2	9.25	69.50	12	0.31	5.8	10.00						
	90	L1	18.17	114.80	23	0.55	39.0	2.17						
	100	DF2	34.16	154.29	35	0.38	99.0	0.68						
									180	14.3	177.	197.	122.5	164.0
2012						(10 YRS)								
	10	AF2	0.92	7.26	45	0.17	0.0	3.33						
	30	GF2	1.29	9.49	35	0.39	0.0	4.87						
	50	GF2	2.96	20.98	35	0.45	0.2	7.16						
	70	WP2	9.68	73.99	12	0.41	5.0	7.97						
	90	L1	18.63	117.69	23	0.39	39.7	1.96						
	100	DF2	34.54	155.85	35	0.33	98.7	0.64						
									190	15.8	150.	203.	124.8	166.8

(con.)

Example 2. (Con.)

2022						(10 YRS)								
	10	AF2	1.14	8.76	45	0.21	0.0	2.01						
	30	GF2	1.61	11.72	35	0.29	0.0	3.19						
	50	GF2	3.70	25.89	40	0.68	0.2	5.12						
	70	WP2	10.18	78.96	12	0.48	4.1	6.56						
	90	L1	18.96	120.02	22	0.28	37.1	1.70						
	100	DF2	34.88	157.31	35	0.30	98.7	0.61	0	17.2	129.	208.	126.4	168.1
									RESIDUAL:	7.5	0.	0.	58.3	0.0
2032 **						(10 YRS)								
	10	L1	0.27	7.69	65	0.00	5.4	5.56						
	30	S1	0.40	4.86	54	0.00	22.5	5.56						
	50	S1	0.40	2.52	86	0.00	44.4	6.11						
	70	L1	0.40	4.71	56	0.00	67.3	6.11						
	90	S1	0.40	1.62	66	0.00	89.4	5.56						
	100	L1	8.92	70.93	58	1.24	100.0	0.00	10	0.4	540.	0.	2.7	0.7
2042 **						(10 YRS)								
	10	L1	0.92	6.30	78	0.44	2.9	3.92						
	30	L1	1.13	8.54	76	0.62	12.3	3.92						
	50	S1	1.38	9.43	75	0.93	27.3	4.85						
	70	S1	1.64	10.95	74	1.19	47.1	4.85						
	90	L1	2.11	18.76	55	1.57	78.4	3.80						
	100	L1	9.56	79.45	56	0.54	100.0	0.00	20	1.5	424.	5.	19.5	6.5
2052						(10 YRS)								
	10	L1	1.44	10.77	78	0.44	0.5	2.80						
	30	L1	2.07	14.60	76	0.80	4.2	3.09						
	50	S1	3.84	19.19	87	2.36	45.0	4.62						
	70	S1	3.67	18.04	58	1.94	36.2	4.71						
	90	L1	4.41	30.46	41	1.96	70.0	3.68						
	100	L1	10.51	86.63	55	0.81	100.0	0.00	30	3.5	387.	26.	32.8	26.4
2062						(10 YRS)								
	10	L1	2.61	18.64	78	1.00	0.7	1.89						
	30	L1	3.19	21.45	50	0.95	1.2	2.56						
	50	S1	5.80	29.05	84	1.87	44.3	4.58						
	70	S1	5.76	25.64	59	2.00	42.0	4.64						
	90	L1	5.78	39.00	35	1.16	43.0	3.59						
	100	L1	12.45	96.76	55	1.65	100.0	0.00	40	5.6	373.	63.	35.9	58.6
2072						(10 YRS)								
	10	L1	3.68	25.98	38	0.91	0.3	1.62						
	30	L1	3.79	30.34	44	0.52	0.5	2.20						
	50	S1	7.34	34.88	83	1.47	35.5	4.49						
	70	S1	9.20	37.33	62	3.29	76.8	4.56						
	90	L1	6.33	48.79	25	0.47	12.3	3.42						
	100	L1	13.97	104.57	55	1.29	100.0	0.00	50	7.6	358.	113.	39.0	97.7

(con.)

2082						(10 YRS)								
	10	L1	4.37	30.67	36	0.58	0.2	1.34						
	30	L1	4.27	34.91	40	0.41	0.1	1.56						
	50	S1	8.66	41.08	81	1.26	27.7	4.29						
	70	S1	12.18	48.44	61	2.85	77.9	4.39						
	90	L1	6.67	52.87	20	0.30	4.0	2.87						
	100	L1	14.38	107.59	54	0.35	92.9	0.00						
									60	9.5	336.	164.	49.4	135.5
									RESIDUAL:	10.7	208.	130.	49.4	104.6
2092						(10 YRS)								
	10	L1	5.15	35.31	36	0.67	0.0	0.02						
	30	L1	5.19	39.90	40	0.78	0.0	0.02						
	50	S1	10.46	48.31	80	1.72	17.8	4.09						
	70	S1	13.53	54.04	60	1.29	64.2	4.22						
	90	L1	7.37	59.77	20	0.59	0.1	0.04						
	100	L1	15.64	113.92	54	1.08	78.5	0.00						
									70	12.5	198.	167.	56.4	129.2
2102						(10 YRS)								
	10	L1	5.49	39.46	35	0.29	0.0	0.02						
	30	L1	5.68	44.34	39	0.42	0.0	0.02						
	50	S1	11.67	53.96	76	1.16	16.3	3.86						
	70	S1	14.24	57.51	54	0.68	44.5	3.97						
	90	L1	8.03	64.11	19	0.57	0.1	0.04						
	100	L1	16.31	117.80	52	0.56	69.0	0.00						
									80	14.3	182.	202.	64.5	148.3
2112						(10 YRS)								
	10	L1	6.24	44.50	35	0.64	0.0	0.01						
	30	L1	5.82	46.24	38	0.12	0.0	0.01						
	50	S1	12.35	57.58	72	0.65	11.1	3.57						
	70	S1	15.49	62.47	50	1.19	33.5	3.65						
	90	L1	8.38	67.91	18	0.30	0.0	0.03						
	100	L1	17.76	124.25	50	1.24	65.0	0.00						
									90	16.0	166.	231.	70.5	162.4
									RESIDUAL:	19.3	64.	130.	70.5	84.9
2122						(10 YRS)								
	10	L1	6.78	48.50	35	0.46	0.0	0.00						
	30	L1	6.43	52.84	38	0.52	0.0	0.00						
	50	S1	13.21	61.72	77	0.82	0.3	0.07						
	70	S1	16.61	66.89	56	1.07	1.1	0.07						
	90	L1	9.72	76.72	18	1.14	0.0	0.00						
	100	L1	19.20	130.28	53	1.23	32.7	0.00						
									100	20.9	63.	149.	76.4	94.9

** NOTE: DUE TO HARVEST, COMPRESSION, OR REGENERATION ESTABLISHMENT, NEW SAMPLE TREES WERE SELECTED.

(con.)

Example 2. (Con.)

YEAR	AGE	TREES /ACRE	VOLUME PER ACRE TOTAL CU FT	MERCH CU FT	MERCH BD FT	REMOVALS PER ACRE TREES /ACRE	TOTAL CU FT	MERCH CU FT	MERCH BD FT	BA/ ACRE SQFT	CCF	TOP HT FT	GROWTH PRD YRS	ACC CUFT/YR	MOR CUFT/YR	STAND SAMPLE WEIGHT	IDENTIFIERS STAND	MGMT
1972	150	371	6229	5841	30364	0	0	0	0	166	146	115	10	97	28	9	EXAMPLE2	NONE
1982	160	280	6918	6619	34384	0	0	0	0	179	154	117	10	98	35	9	EXAMPLE2	NONE
1992	170	218	7552	7271	38004	0	0	0	0	190	160	119	10	93	43	9	EXAMPLE2	NONE
2002	180	177	8053	7798	41171	0	0	0	0	197	164	122	10	95	50	9	EXAMPLE2	NONE
2012	190	150	8504	8255	44133	0	0	0	0	203	167	125	10	96	55	9	EXAMPLE2	NONE
2022	0	129	8912	8665	46789	129	8912	8665	46789	0	0	58	10	0	0	9	EXAMPLE2	NONE
2032	10	540	0	0	0	0	0	0	0	0	1	3	10	3	0	9	EXAMPLE2	NONE
2042	20	424	34	0	0	0	0	0	0	5	6	19	10	21	0	9	EXAMPLE2	NONE
2052	30	387	245	0	0	0	0	0	0	26	26	33	10	54	1	9	EXAMPLE2	NONE
2062	40	373	778	169	614	0	0	0	0	63	59	36	10	93	2	9	EXAMPLE2	NONE
2072	50	358	1686	1071	4400	0	0	0	0	113	98	39	10	128	9	9	EXAMPLE2	NONE
2082	60	336	2879	2422	11338	128	551	325	1259	130	105	49	10	114	11	9	EXAMPLE2	NONE
2092	70	198	3358	3101	16558	0	0	0	0	167	129	56	10	136	25	9	EXAMPLE2	NONE
2102	80	182	4469	4192	24100	0	0	0	0	202	148	65	10	143	36	9	EXAMPLE2	NONE
2112	90	166	5537	5243	31222	102	2365	2221	11871	130	85	71	10	76	8	9	EXAMPLE2	NONE
2122	100	63	3857	3691	23940	0	0	0	0	149	95	76	0	0	0	9	EXAMPLE2	NONE

ACTIVITY SUMMARY

STAND ID= EXAMPLE2   MANAGEMENT ID= NONE   EVENT MONITOR USER'S GUIDE, EXAMPLE 2

CYCLE	DATE	EXTENSION	KEYWORD	DATE	ACTIVITY DISPOSITION	PARAMETERS:			
1	1972								
2	1982								
3	1992								
4	2002								
5	2012								
6	2022								
		BASE	THINATA	2022	DONE IN 2022	0.00	1.00	0.00	999.00
		ESTB	BURNPREP	2023	DONE IN 2023	80.00			
		ESTB	MECHPREP	2023	DONE IN 2023	20.00			
		ESTB	PLANT	2024	DONE IN 2024	2.00	300.00	90.00	
		ESTB	PLANT	2024	DONE IN 2024	8.00	300.00	90.00	
		ESTB	STOCKADJ	2031	DONE IN 2031	-1.00			
		ESTB	RESETAGE	2022	DONE IN 2031	0.00			
		ESTB	TALLYONE	2031	DONE IN 2031	2022.00			
7	2032								
		ESTB	TALLYTWO	2041	DONE IN 2041	2022.00			
8	2042								
9	2052								
10	2062								
11	2072								
12	2082								
		BASE	THINBBA	2082	DONE IN 2082	130.00	0.98	0.00	999.00
13	2092								
14	2102								
15	2112								
		BASE	THINBBA	2112	DONE IN 2112	130.00	0.98	0.00	999.00

(con.)

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*                                               *
*        REGENERATION ESTABLISHMENT MODEL VERSION 1.0          *
*                                               *
* * * * * * * * * * * * * * * * * * * * * * * *

THE PRESCRIPTION FOR STAND: EXAMPLE2    MANAGEMENT ID: NONE

   DATE OF   SITE PREP, DATE, AND PERCENT   NUMBER OF PLOTS
   DISTURB-  ----------------------------   BY HABITAT TYPE
   ANCE      NONE PCT  MECH PCT  BURN PCT   520 530 570 620
   --------  ---- ---  ---- ---  ---- ---   --- --- --- ---
       2022  2022   0  2023  20  2023  80     0   0   0   9

CUMULATIVE PROBABILITY OF STOCKING IS 0.0000 IN THE FALL OF 2031
NOTE: REPORTED PROBABILITY OF STOCKING DOES NOT INCLUDE PLANTED TREES.
SPECIES PLANTED: L   S

             ADDITIONAL     SUBSAMPLE OF "BEST"     REGENERATION(<3"DBH)
             REGENERATION   TREES REGENERATING      BEING PROJECTED BY
 TALLYONE    THIS TALLY.    DURING THIS TALLY.      THE PROGNOSIS MODEL.
             -----------    -------------------     --------------------
             TREES % OF     TREES % OF  AVERAGE     TREES  % OF
     SPECIES /ACRE TOTAL    /ACRE TOTAL HEIGHT      /ACRE  TOTAL SPECIES
     ------- ----- -----    ----- ----- -------     -----  ----- -------
        WP     0.    0.       0.    0.    0.0         0.     0.    WP
        L    270.   50.     270.   50.    5.5       270.    50.    L
        DF     0.    0.       0.    0.    0.0         0.     0.    DF
        GF     0.    0.       0.    0.    0.0         0.     0.    GF
        WH     0.    0.       0.    0.    0.0         0.     0.    WH
        C      0.    0.       0.    0.    0.0         0.     0.    C
        LP     0.    0.       0.    0.    0.0         0.     0.    LP
        S    270.   50.     270.   50.    3.2       270.    50.    S
        AF     0.    0.       0.    0.    0.0         0.     0.    AF
        PP     0.    0.       0.    0.    0.0         0.     0.    PP
             -----          -----                   -----
              540.           540.                    540.


CUMULATIVE PROBABILITY OF STOCKING IS 0.0000 IN THE FALL OF 2041

             ADDITIONAL     SUBSAMPLE OF "BEST"     REGENERATION(<3"DBH)
             REGENERATION   TREES REGENERATING      BEING PROJECTED BY
 TALLYTWO    THIS TALLY.    DURING THIS TALLY.      THE PROGNOSIS MODEL.
             -----------    -------------------     --------------------
             TREES % OF     TREES % OF  AVERAGE     TREES  % OF
     SPECIES /ACRE TOTAL    /ACRE TOTAL HEIGHT      /ACRE  TOTAL SPECIES
     ------- ----- -----    ----- ----- -------     -----  ----- -------
        WP     0.    0.       0.    0.    0.0         0.     0.    WP
        L      0.    0.       0.    0.    0.0       188.    44.    L
        DF     0.    0.       0.    0.    0.0         0.     0.    DF
        GF     0.    0.       0.    0.    0.0         0.     0.    GF
        WH     0.    0.       0.    0.    0.0         0.     0.    WH
        C      0.    0.       0.    0.    0.0         0.     0.    C
        LP     0.    0.       0.    0.    0.0         0.     0.    LP
        S      0.    0.       0.    0.    0.0       236.    56.    S
        AF     0.    0.       0.    0.    0.0         0.     0.    AF
        PP     0.    0.       0.    0.    0.0         0.     0.    PP
             -----          -----                   -----
                0.             0.                    424.
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Example 3.

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                    STAND GROWTH PROGNOSIS SYSTEM         VERSION 5.0 -- INLAND EMPIRE (TEST)

                         PARALLEL PROCESSING EXTENSION -- VERSION 1.0
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                                 OPTIONS SELECTED BY INPUT

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KEYWORD    PARAMETERS:
--------   ---------------------------------------------------------------------------------------------

ADDSTAND   ADD ONE STAND TO THE DATA BASE.

STDIDENT
           STAND ID= EXAMPLE3           EVENT MONITOR USER'S GUIDE EXAMPLE 3.

INVYEAR    INVENTORY YEAR= 1972

NUMCYCLE   NUMBER OF CYCLES= 10

IF         MINIMUM DELAY TIME BETWEEN RESPONSES TO THE EVENT =   999

             BCCF GT 150 AND BTPA GT 500 AND AGE &
             GT 20 AND AGE LT 60

THEN       ACTIVITIES WHICH FOLLOW WILL NOT BE SCHEDULED UNTIL THE EVENT HAPPENS (WHEN THE LOGICAL EXPRESSION IS TRUE).

THINBTA    DATE/CYCLE=    0; RESIDUAL=  300.00; PROPORTION OF SELECTED TREES REMOVED= 0.980
           DBH OF REMOVED TREES WILL RANGE FROM   0.0 TO 999.0 INCHES

ALSOTRY    ACTIVITIES WHICH FOLLOW WILL NOT BE SCHEDULED UNTIL THE EVENT HAPPENS (WHEN THE LOGICAL EXPRESSION IS TRUE).

THINBTA    DATE/CYCLE=    0; RESIDUAL=  400.00; PROPORTION OF SELECTED TREES REMOVED= 0.980
           DBH OF REMOVED TREES WILL RANGE FROM   0.0 TO 999.0 INCHES

ALSOTRY    ACTIVITIES WHICH FOLLOW WILL NOT BE SCHEDULED UNTIL THE EVENT HAPPENS (WHEN THE LOGICAL EXPRESSION IS TRUE).

ENDIF      ACTIVITIES WHICH FOLLOW WILL BE SCHEDULED.

STDINFO    FOREST CODE= 18; HABITAT TYPE=710; AGE=   10; ASPECT CODE=  4.; SLOPE CODE=  5.
           ELEVATION(100'S FEET)= 56.0; SITE INDEX=   0.

PROCESS    PROCESS THE STAND.
--------------------------------------------------------------------------------------------------------

                                 OPTIONS SELECTED BY DEFAULT

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TREEFMT    (23X,I4,3X, F2.0,I1, A3,F3.1,F2.1,3X,F3.0,T63,F3.0   ,T60,F3.1,T48,  I1,3X, I2,
           2I1,T66,2I1,I3, 2I1)

DESIGN     BASAL AREA FACTOR= 40.0; INVERSE OF FIXED PLOT AREA=  300.0; BREAK DBH=    5.0
           NUMBER OF PLOTS=    18; NON-STOCKABLE PLOTS=    7; STAND SAMPLING WEIGHT=  18.00000
           STAND ATTRIBUTES ARE CALCULATED PER ACRE OF STOCKABLE AREA.  STAND STATISTICS
           IN SUMMARY TABLE ARE MULTIPLIED BY 0.611 TO INCLUDE TOTAL STAND AREA.
--------------------------------------------------------------------------------------------------------
```

(con.)

```
                                        ACTIVITY SCHEDULE

STAND ID= EXAMPLE3    MANAGEMENT ID= NONE        EVENT MONITOR USER'S GUIDE EXAMPLE 3.

------------------------------------------------------------------------------------------------------

CYCLE  DATE  EXTENSION  KEYWORD   DATE  PARAMETERS:
-----  ----  ---------  --------  ----  ----------------------------------------------------------------

    1  1972
    2  1982
    3  1992
    4  2002
    5  2012
    6  2022
    7  2032
    8  2042
    9  2052
   10  2062
------------------------------------------------------------------------------------------------------

CALIBRATION STATISTICS:

                                                    LP    WP    AF    --     S
                                                   ----  ----  ----  ----  ----

NUMBER OF RECORDS PER SPECIES                         2     5    19     5     2

NUMBER OF RECORDS CODED AS RECENT MORTALITY           0     0     0     0     0

NUMBER OF RECORDS WITH MISSING HEIGHTS                0     0     1     1     0

NUMBER OF RECORDS WITH BROKEN OR DEAD TOPS            0     0     0     0     0

NUMBER OF RECORDS WITH MISSING CROWN RATIOS           0     0     0     0     0

NUMBER OF RECORDS AVAILABLE FOR SCALING
THE DIAMETER INCREMENT MODEL                          0     0     1     0     1

RATIO OF STANDARD ERRORS
(INPUT DBH GROWTH DATA : MODEL)                    1.00  1.00  1.00  1.00  1.00

WEIGHT GIVEN TO THE INPUT GROWTH DATA WHEN
DBH GROWTH MODEL SCALE FACTORS WERE COMPUTED       0.00  0.00  0.00  0.00  0.00

INITIAL SCALE FACTORS FOR THE
DBH INCREMENT MODEL                                1.00  1.00  1.00  1.00  1.00

NUMBER OF RECORDS AVAILABLE FOR SCALING
THE SMALL TREE HEIGHT INCREMENT MODEL                 0     0     0     0     0

INITIAL SCALE FACTORS FOR THE SMALL TREE
HEIGHT INCREMENT MODEL                             1.00  1.00  1.00  1.00  1.00
```

(con.)

Example 3. (Con.)

```
SUMMARY UP TO MASTER STARTING YEAR:

                               SUMMARY STATISTICS (BASED ON TOTAL STAND AREA)
-----------------------------------------------------------------------------------------------------------
                  VOLUME PER ACRE     REMOVALS PER ACRE                           GROWTH
                  -----------------  -----------------------  BA/       TOP   ----------- STAND   IDENTIFIERS
           TREES TOTAL MERCH MERCH TREES TOTAL MERCH MERCH ACRE      HT   PRD ACC MOR SAMPLE -------------
YEAR AGE /ACRE CU FT CU FT BD FT /ACRE CU FT CU FT BD FT SQFT CCF FT   YRS CUFT/YR WEIGHT  STAND     MGMT
---- --- ----- ----- ----- ----- ----- ----- ----- ----- ---- --- ---  --- --- --- ------ ---------- ----
1972  10  1171    98    84   475     0     0     0     0    5   5  19    0   0   0      0 EXAMPLE3  NONE


                                    STAND GROWTH PROGNOSIS SYSTEM        VERSION 5.0 -- INLAND EMPIRE (TEST)

                                        PARALLEL PROCESSING EXTENSION -- VERSION 1.0
------------------------------------------------------------------------------------------------------------------------------------

                                                 OPTIONS SELECTED BY INPUT

------------------------------------------------------------------------------------------------------------------------------------
KEYWORD    PARAMETERS:
--------   -------------------------------------------------------------------------------------------------------------------------

PROJECT    THERE ARE  1 STANDS TO PROJECT.

NOCOMPOS   COMPOSITE YIELD TABLES WILL NOT BE GENERATED.

YIELDS     PROCESS YIELD TABLES.
------------------------------------------------------------------------------------------------------------------------------------



                                    STAND GROWTH PROGNOSIS SYSTEM        VERSION 5.0 -- INLAND EMPIRE (TEST)

NOTE:  PROCESSING STAND NUMBER:   1; STAND ID: EXAMPLE3  MGMT ID: NONE  SAMPLING WEIGHT:   18.00000
BRANCHING: NODE=1, BRCH=1

                               SUMMARY STATISTICS (BASED ON TOTAL STAND AREA)
-----------------------------------------------------------------------------------------------------------
                  VOLUME PER ACRE     REMOVALS PER ACRE                           GROWTH
                  -----------------  -----------------------  BA/       TOP   ----------- STAND   IDENTIFIERS
           TREES TOTAL MERCH MERCH TREES TOTAL MERCH MERCH ACRE      HT   PRD ACC MOR SAMPLE -------------
YEAR AGE /ACRE CU FT CU FT BD FT /ACRE CU FT CU FT BD FT SQFT CCF FT   YRS CUFT/YR WEIGHT  STAND     MGMT
---- --- ----- ----- ----- ----- ----- ----- ----- ----- ---- --- ---  --- --- --- ------ ---------- ----
1972  10  1171    98    84   475     0     0     0     0    5   5  19   10   8   0     18 EXAMPLE3  NONE
1982  20  1011   181   115   669     0     0     0     0   13  17  25   10  22   0     18 EXAMPLE3  NONE
1992  30   856   393   175   967     0     0     0     0   33  45  31   10  34   2     18 EXAMPLE3  NONE
2002  40   747   718   265  1425     0     0     0     0   62  81  36   10  49   6     18 EXAMPLE3  NONE
2012  50   640  1149   465  2433   457   532     0     0   42  45  38   10  46   3     18 EXAMPLE3  NONE
2022  60   155  1048   871  4531     0     0     0     0   69  70  41   10  38   5     18 EXAMPLE3  NONE
2032  70   141  1374  1173  6170     0     0     0     0   83  82  46   10  49  11     18 EXAMPLE3  NONE
2042  80   122  1756  1545  8143     0     0     0     0   99  95  51   10  52  14     18 EXAMPLE3  NONE
2052  90   108  2136  1942 11720     0     0     0     0  111 105  56   10  61  21     18 EXAMPLE3  NONE
2062 100    93  2531  2354 13457     0     0     0     0  122 112  62   10  50  20     18 EXAMPLE3  NONE
2072 110    82  2825  2663 15049     0     0     0     0  128 116  66    0   0   0     18 EXAMPLE3  NONE
```

(con.)

```
                                         ACTIVITY SUMMARY
STAND ID= EXAMPLE3     MANAGEMENT ID= NONE        EVENT MONITOR USER'S GUIDE EXAMPLE 3.

------------------------------------------------------------------------------------------------------
CYCLE  DATE  EXTENSION  KEYWORD   DATE  ACTIVITY DISPOSITION  PARAMETERS:
-----  ----  ---------  --------  ----  --------------------  -----------------------------------------

   1   1972
   2   1982
   3   1992
   4   2002

   5   2012
              BASE      THINBTA   2012  DONE IN 2012             300.00      0.98      0.00     999.00

   6   2022
   7   2032
   8   2042
   9   2052
  10   2062
------------------------------------------------------------------------------------------------------


                           STAND GROWTH PROGNOSIS SYSTEM        VERSION 5.0 -- INLAND EMPIRE (TEST)

NOTE:  PROCESSING STAND NUMBER:   1; STAND ID: EXAMPLE3  MGMT ID: NONE  SAMPLING WEIGHT:   18.00000
BRANCHING: NODE=1, BRCH=2

                       SUMMARY STATISTICS (BASED ON TOTAL STAND AREA)
-------------------------------------------------------------------------------------
                 VOLUME PER ACRE      REMOVALS PER ACRE                GROWTH
               -----------------  -------------------------  BA/     TOP ----------- STAND   IDENTIFIERS
          TREES TOTAL MERCH MERCH TREES TOTAL MERCH MERCH ACRE     HT  PRD ACC MOR SAMPLE -------------
YEAR AGE /ACRE CU FT CU FT BD FT /ACRE CU FT CU FT BD FT SQFT CCF FT  YRS CUFT/YR WEIGHT  STAND    MGMT
---- --- ----- ----- ----- ----- ----- ----- ----- ----- ---- --- --- --- --- --- ------ -------- ----
1972  10  1171    98    84   475     0     0     0     0    5   5  19  10   8   0     18 EXAMPLE3 NONE
1982  20  1011   181   115   669     0     0     0     0   13  17  25  10  22   0     18 EXAMPLE3 NONE
1992  30   856   393   175   967     0     0     0     0   33  45  31  10  34   2     18 EXAMPLE3 NONE
2002  40   747   718   265  1425     0     0     0     0   62  81  36  10  49   6     18 EXAMPLE3 NONE
2012  50   640  1149   465  2433   396   407     0     0   54  61  38  10  49   5     18 EXAMPLE3 NONE
2022  60   208  1181   865  4486     0     0     0     0   80  84  42  10  44  10     18 EXAMPLE3 NONE
2032  70   179  1519  1304  6531     0     0     0     0   95  98  46  10  55  14     18 EXAMPLE3 NONE
2042  80   156  1923  1701  8641     0     0     0     0  111 111  51  10  42  15     18 EXAMPLE3 NONE
2052  90   137  2197  1994 10187     0     0     0     0  117 116  55  10  63  26     18 EXAMPLE3 NONE
2062 100   117  2568  2380 13363     0     0     0     0  127 123  60  10  57  24     18 EXAMPLE3 NONE
2072 110   103  2891  2710 14796     0     0     0     0  134 126  65   0   0   0     18 EXAMPLE3 NONE
```

(con.)

Example 3. (Con.)

```
                                              ACTIVITY SUMMARY

STAND ID= EXAMPLE3    MANAGEMENT ID= NONE        EVENT MONITOR USER'S GUIDE EXAMPLE 3.

----------------------------------------------------------------------------------------------------

CYCLE  DATE  EXTENSION  KEYWORD   DATE  ACTIVITY DISPOSITION  PARAMETERS:
-----  ----  ---------  --------  ----  --------------------  --------------------------------------

  1    1972
  2    1982
  3    1992
  4    2002

  5    2012
               BASE     THINBTA   2012  DONE IN 2012               400.00      0.98      0.00    999.00

  6    2022
  7    2032
  8    2042
  9    2052
 10    2062
----------------------------------------------------------------------------------------------------


                          STAND GROWTH PROGNOSIS SYSTEM         VERSION 5.0 -- INLAND EMPIRE (TEST)

NOTE:  PROCESSING STAND NUMBER:   1; STAND ID: EXAMPLE3  MGMT ID: NONE  SAMPLING WEIGHT:   18.00000
BRANCHING: NODE=1, BRCH=3

                        SUMMARY STATISTICS (BASED ON TOTAL STAND AREA)
------------------------------------------------------------------------------------------
                 VOLUME PER ACRE     REMOVALS PER ACRE                   GROWTH
               ----------------- ----------------------- BA/      TOP ----------- STAND  IDENTIFIERS
          TREES TOTAL MERCH MERCH TREES TOTAL MERCH MERCH ACRE     HT  PRD ACC MOR SAMPLE -------------
YEAR AGE /ACRE CU FT CU FT BD FT /ACRE CU FT CU FT BD FT SQFT CCF FT  YRS CUFT/YR WEIGHT  STAND    MGMT
---- --- ----- ----- ----- ----- ----- ----- ----- ----- ---- --- --- --- --- --- ------ -------- ----
1972  10  1171    98    84   475     0     0     0     0    5   5  19  10   8   0     18 EXAMPLE3 NONE
1982  20  1011   181   115   669     0     0     0     0   13  17  25  10  22   0     18 EXAMPLE3 NONE
1992  30   856   393   175   967     0     0     0     0   33  45  31  10  34   2     18 EXAMPLE3 NONE
2002  40   747   718   265  1425     0     0     0     0   62  81  36  10  49   6     18 EXAMPLE3 NONE
2012  50   640  1149   465  2433     0     0     0     0   93 116  38  10  63  16     18 EXAMPLE3 NONE
2022  60   515  1621   914  4644     0     0     0     0  121 142  41  10  60  26     18 EXAMPLE3 NONE
2032  70   407  1959  1490  6862     0     0     0     0  135 153  46  10  60  30     18 EXAMPLE3 NONE
2042  80   325  2258  1866  8746     0     0     0     0  144 159  51  10  75  40     18 EXAMPLE3 NONE
2052  90   258  2607  2274 11924     0     0     0     0  151 162  55  10  57  35     18 EXAMPLE3 NONE
2062 100   212  2824  2517 13021     0     0     0     0  152 159  58  10  68  42     18 EXAMPLE3 NONE
2072 110   174  3074  2798 14287     0     0     0     0  153 156  62   0   0   0     18 EXAMPLE3 NONE
```


U.S. GOVERNMENT PRINTING OFFICE: 1985-0-676-039/20023

Crookston, Nicholas L. User's guide to the Event Monitor: an addition to the Prognosis Model. General Technical Report INT-196. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station; 1985. 36 p.

Describes how to use the Event Monitor for scheduling Prognosis Model (Wykoff and others 1982) and Establishment Model (Ferguson and Crookston 1984) options, and for creating decision trees using the Parallel Processing Extension (Crookston in preparation). The program monitors certain statistics within the Prognosis Model and, when specified values are reached, schedules options that represent management activities.

KEYWORDS: simulation, forest, management, policy, growth

The Intermountain Research Station, headquartered in Ogden, Utah, is one of eight Forest Service Research stations charged with providing scientific knowledge to help resource managers meet human needs and protect forest and range ecosystems.

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